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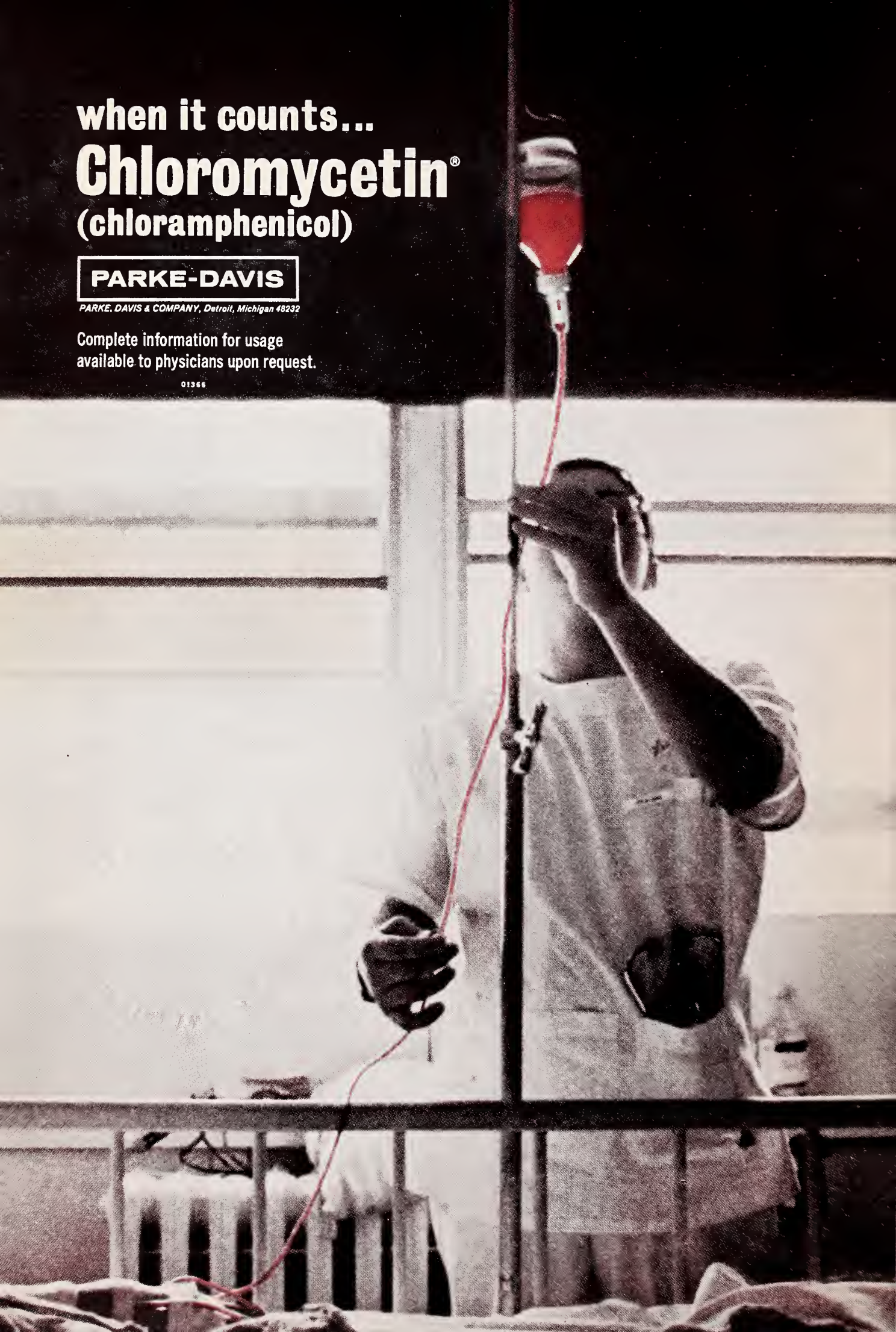

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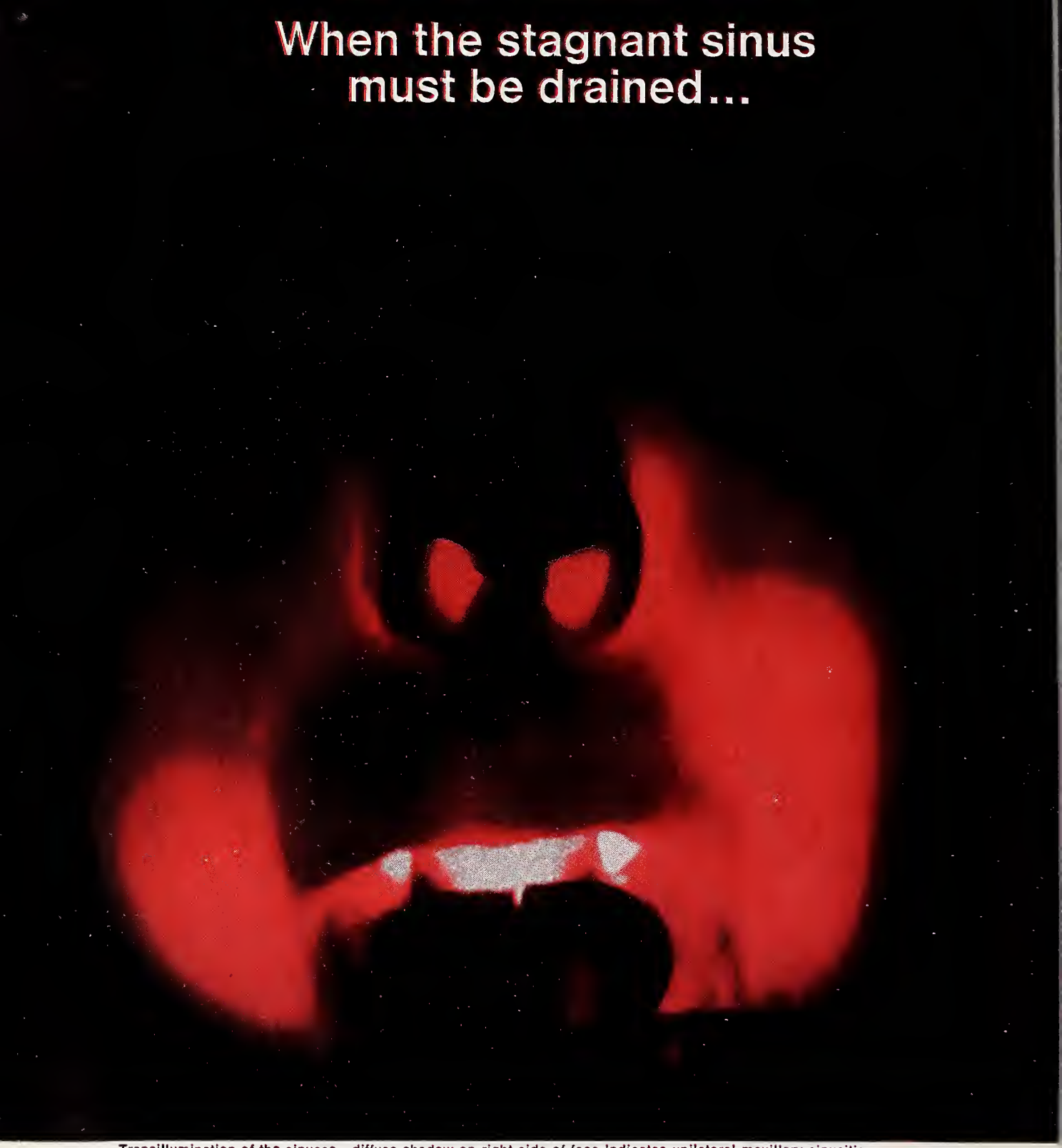

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JOURNAL OF THE MEDICAL ASSOCIATION Georgia

■ Ingestion of lead salts may produce effects upon the gastrointestinal, hematologic, and nervous systems which mimic the effects of alcohol.

LEAD INTOXICATION AND ALCOHOLISM: A DIAGNOSTIC DILEMMA

James C. Crutcher, M.D., *Atlanta*

In recent years, illicitly distilled alcohol has been found to contain sufficient lead contamination to cause clinically significant lead poisoning.[1, 2, 3, 4] The proof of this diagnosis, however, requires specialized collection and determination procedures not readily available to the physician. The treatment with calcium disodium ethylenediamine tetracetic acid (hereafter referred to as Ca EDTA) may have serious side effects so that its use is predicated on a firm clinical foundation.[5, 6] The purpose of this paper is to demonstrate those features in the clinical evaluation which contribute to the probable diagnosis of lead intoxication with sufficient confidence to institute therapy without waiting for positive laboratory confirmation. These observations have extended over a 12 year period and included 34 patients.

Epidemiology

A previous publication has demonstrated that the source of lead is found in the distillation apparatus used in the manufacture of illicit alcohol.[3] This contaminated whiskey is both sporadic in occurrence and varies markedly in lead content, thus making it difficult to pinpoint any particular source. One major clue, however, is found when the area of residence of patients with this disorder is plotted. As shown in Figure 1, the area of residence and the probable source of the alcohol is in the rural sections of Georgia. These observations suggest that the patients of high probability are those who drink illicit alcohol in the rural areas where the manufacture of moonshine is more likely to occur in crude stills with small volume. One is not likely to find this disorder among those who drink illicit alcohol brought to large metropolitan areas.

The patient population found to have this disorder are those who are chronic drinkers of alcohol and thus show evidences of the disease states associated with acute and chronic alcoholism. The effects of alcohol ingestion on the gastrointestinal, hematologic, and nervous system are well recognized. The further observation, however, that lead salts can cause the same symptoms and coexist at the same time in the same patient makes the diagnosis extremely difficult.

Hematologic Disorders

Alcohol in both acute and chronic usage may cause acute hemolytic anemia,[7, 8] acute blood loss anemia from gastritis, bleeding varices, and associated peptic ulcer disease, as well as the iron deficiency hypochromic anemia of chronic blood loss from the gastrointestinal tract. Lead intoxication can also cause hemolytic anemia,[9, 10] a normochromic

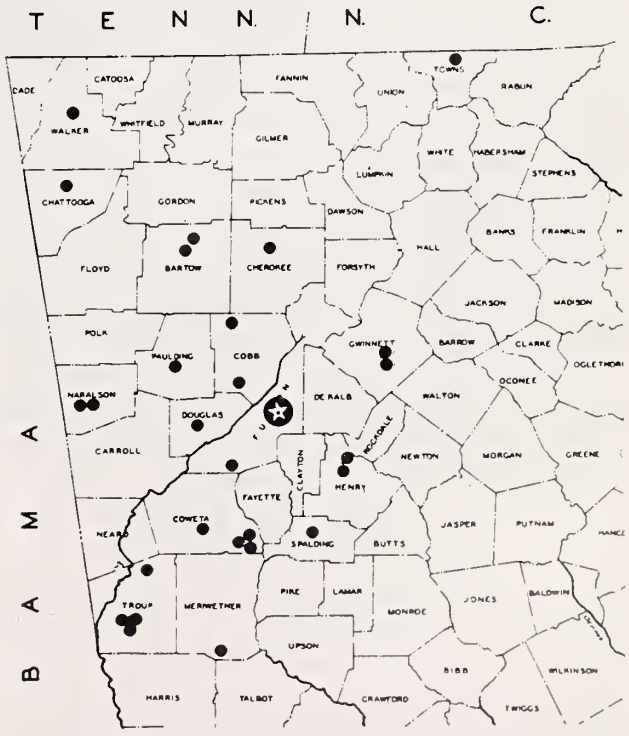

FIGURE 1

Place of residence of patients with proven lead intoxication. The only pattern is that of predominant rural areas.

anemia, and more commonly, a hypochromic anemia mimicking[11] that anemia of chronic blood loss. The only definitive method to distinguish these two causes is the demonstration of moderate to marked basophilic stippling in the peripheral blood and bone marrow.[12, 13] An additional helpful finding is the association of a brisk reticulocytosis in the presence of a hypochromic anemia since this response is unusual in the iron-deficiency, hypochromic anemia due to blood loss.[14]

Case Report

The following case report serves to illustrate these observations. *Case 1:* B.C., a 45-year-old handyman from Tallapoosa, Georgia, was admitted to the Atlanta VA Hospital with a two-week progressive history of weakness, dyspnea, anorexia, cramping abdominal pain, and intermittent vomiting. He admitted to a two-year history of daily intake of moonshine whiskey produced locally. Physical examination revealed a poorly nourished, acutely ill, Negro male, with marked pallor of the mucous membranes and a definite deeply pigmented line in the gingiva about carious teeth. Generalized abdominal tenderness and hypoactive bowel sounds were present. Neurological examination was within normal limits. Laboratory findings revealed: hemoglobin 5 grams %, hematocrit 19 mm, and on peripheral smear, marked basophilic stippling, and a reticulocytosis of 75%. Bone marrow examination revealed rubricytic hyperplasia with marked basophilic stippling in the metarubricytes. Stool guaiacs were negative. Liver function tests were normal. Gingival biopsy was compatible with deposition of heavy metal.

He received 2 grams of Ca EDTA daily for seven days with maximum excretion of 2.23 mg of lead for 24 hours (normal excretion being 0.20 mg per liter of urine). Because of the severity of the anemia, he received an additional oral course of Ca EDTA, two grams a day for ten days, one week after his initial intravenous course. On this therapy alone, except for a routine hospital diet, all of the blood abnormalities returned toward normal. This episode represented a rather specific example of both the hemolytic and hypochromic anemia due to lead poisoning.

Return to Hospital

The patient returned to the hospital four years later complaining again of nausea, vomiting, abdominal pain, and in addition, progressive confusion and stupor, and two episodes of generalized seizures. Physical examination revealed a temperature of 105°, moderate rales in the right chest, pallor of the mucous membranes, a semi-stuporous state, and a moderately distended abdomen with generalized tenderness and guarding. Chest x-ray demonstrated minimal pneumonia in the right lower lobe; flat plate of the abdomen indicated generalized ileus of both large and small bowel. Laboratory findings revealed: hemoglobin, 7.6 grams %, hematocrit 26 mm, and on peripheral smear marked hypochromia, moderate basophilic stippling, and a reticulocytosis of only 4.6%. Cerebral spinal fluid revealed a normal opening pressure, a slightly traumatic tap with 3000 red cells, eight white cells, and a protein of 200 mg %.

The patient was considered to have lead intoxication with anemia, encephalopathy, gastrointestinal ileus, and pneumonia. The pneumonia was treated with antibiotics. His semi-stuporous condition required tracheotomy in order to maintain airway, and the basic therapy consisted of Ca EDTA, one gram per day for seven days. On this therapy he excreted 20 mg of lead per 24 hour urine, and because of this high excretion he received an additional course of one gram per day for five days. The sensorium cleared markedly; the abdominal distension and tenderness cleared concomitantly with Ca EDTA therapy as well as treatment of his pneumonia; and more specifically, the basophilic stippling disappeared from the peripheral blood within the first two weeks. Conversely the reticulocyte count gradually decreased to 2%, and the hemoglobin and hematocrit remained essentially the same. At this time it was evident that the anemia was complicated by a cause other than lead alone. Stool examinations revealed persistent guaiac-positive stools. GI series and barium enema were normal. Proctoscopic revealed only external hemorrhoids. After the failure to respond to Ca EDTA therapy, and with the low reticulocyte count in the presence of severe hypochromic anemia, the patient was given ferrous sulphate, 300 mg, four times a day. With this therapy there was a brisk reticulocyte response and a progressive return of the hemoglobin and hematocrit toward normal.

Comment

As demonstrated in Figure 2, this patient's first admission demonstrated not only evidence of the acute hemolytic anemia and hypochromic anemia associated with a brisk reticulocytosis usually seen in lead poisoning, but also the expected response to Ca EDTA. The hematologic picture of his second admission again showed some of the similar features of lead intoxication, but the failure to respond to Ca EDTA alone suggested that an additional factor of iron deficiency anemia due to chronic blood loss was suspected. This impression was reinforced by his response to iron therapy. In addition, his second hospitalization presented the other complications of lead intoxication, namely encephalopathy and gastro-

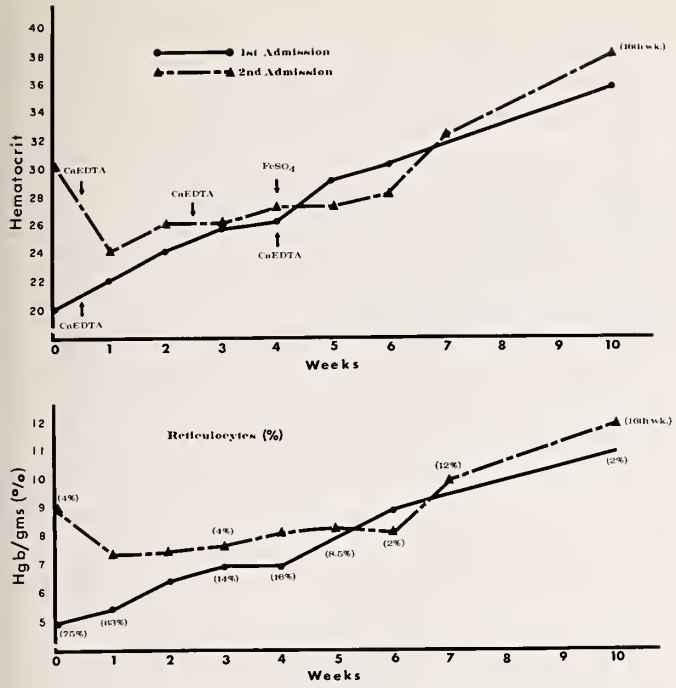

FIGURE 2

The solid line indicates the severe degree of anemia and reticulocytosis and response to Ca EDTA typical of lead intoxication. The broken line contrasts the minimal reticulocytosis and failure to respond to Ca EDTA when both lead and iron deficiency were present.

intestinal ileus, both of which responded to Ca EDTA and supportive care.

The major differential problem of the effects of alcohol and lead on the GI tract is the fact that acute alcoholic hepatitis, acute pancreatitis, posterior penetrating ulcer, and cholecystitis can cause abdominal pain, nausea, vomiting, and distension. Anorexia, nausea, vomiting, abdominal distension, and the presence of marked ileus are symptoms characteristic of lead intoxication.

Case Report Two

An extreme example of the GI manifestations of this disorder is presented in the following case report. *Case 2:* H.E.B., 35-year-old sawmill worker from Dallas, Georgia, was admitted to the Atlanta VA Hospital with a 12-day history of severe cramping, abdominal pain with radiation through to the back, associated at times with pain in the chest of a pleuritic nature, and accompanied by severe anorexia and intermittent vomiting. Alkali and food failed to improve his symptoms. Pertinent physical examination revealed an acutely ill white male complaining of severe abdominal pain. There was pallor to the mucous membranes. Abdominal examination revealed marked epigastric tenderness with rebound and hypoactive bowel sounds. Laboratory data revealed: hemoglobin, 9 grams %, hematocrit 28 mm, and on peripheral smear marked basophilic stippling, hypochromia, and a reticulocyte count of 8%. Bilirubin and thymol turbidity were normal but there

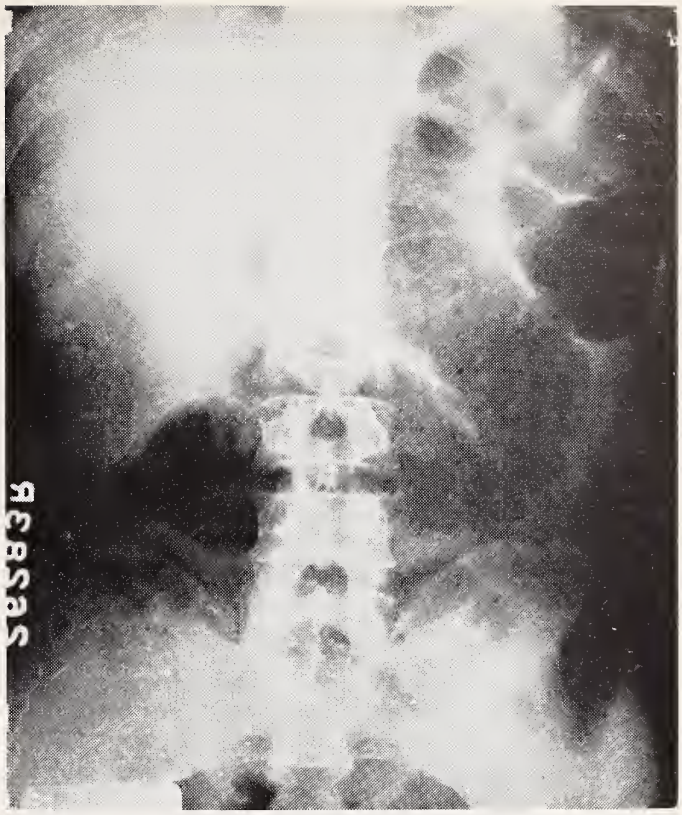

FIGURE 3

Marked distension of large bowel up to splenic flexure; some gas, however, distal. Progressive distension suggested obstruction at splenic flexure.

was a 25% BSP retention at 45 minutes. Flat plate of the abdomen revealed gaseous distension of the large bowel as demonstrated in Figure 3. The patient was seen by numerous physicians and the differential diagnoses included a posterior penetrating ulcer, cholecystitis, carcinoma of the pancreas and carcinoma of the colon. Because of progressive distension of the abdomen to the point it was felt the patient had imminent perforation, an exploratory laparotomy was done. The colon was markedly distended but no obstruction could be found and it was decompressed with a cecostomy. The patient's clinical course was re-evaluated and more attention was paid to the marked basophilic stippling in both the peripheral blood and the bone marrow. Accordingly, he was treated with Ca EDTA with the excretion of 20 mg of lead per 24 hours of urine during the 24-hour period following the first day of treatment, associated with marked improvement in his abdominal complaints. In addition, there was a progressive return of the hemoglobin and hematocrit to normal. The patient has been seen on two other occasions during the ensuing seven years, complaining of intermittent abdominal pain, and the findings of a hypochromic anemia, with marked basophilic stippling. On each occasion he has responded well to Ca EDTA therapy, with immediate improvement of his gastrointestinal complaints and gradual improvement of his blood picture.

This patient represents the extreme degree of ileus one can encounter in lead intoxication and serves to illustrate the point that ileus simulating organic obstruction can be seen in patients with this disorder. This finding may help in the differential diagnosis, but only if associated with the hematologic abnormalities of lead intoxication.

Nervous System Manifestations

The symptoms and signs of lethargy, drowsiness, somnolence, convulsions, semi-stupor, and coma are seen in both lead encephalopathy and acute alcoholism. Since both of these causes may exist at the same time, the only helpful differential diagnostic clue is the fact that in lead encephalopathy one may find elevated protein in the cerebral spinal fluid.[15] These findings in the appropriate clinical setting are the clinical criteria for making the diagnosis of lead encephalopathy. This diagnosis is always tenuous.

Indications for Treatment

The decision to treat a patient with Ca EDTA must of necessity be based on clinical evaluation inasmuch as the specific determination of lead in the urine requires an interval of at least several days. In evaluating pre-treatment urine lead levels it was found that in 17 of 20 patients in whom pre-treatment urine lead levels were obtained, the lead concentration was either normal or sufficiently close to normal to give misleading information. Moreover, the amount of lead excreted while on Ca EDTA bore no relationship to the pre-treatment urine lead concentration.[4] For example, the patient who excreted 20 mg of lead per 24-hour had a pre-treatment lead concentration of 0.44 mg per liter, whereas another patient with 0.74 mg per liter of urine excreted 4.5 mg of lead per 24-hour urine.[4] Because of these observations it is recommended that, if clinically indicated, Ca EDTA therapy be begun immediately, and that confirmation of the diagnosis be obtained by collecting a 24-hour urine in lead free bottles 24 hours after the institution of therapy. The recommended dosage is two grams of Ca EDTA intravenously daily for five days, or one gram a day intravenously for ten days. The gastrointestinal symptoms should improve within 24 to 48 hours; the CNS manifestations in 48 to 72 hours, and basophilic stippling should begin to disappear and increase in hematocrit should occur around the 14th day.

Summary and Conclusions

Since both lead and alcohol can cause similar reactions on the hematologic, gastrointestinal, and neurologic symptoms, patients ingesting lead contaminated alcohol can have both effects at the same time. It is suggested that the diagnostic suspicion of this disorder be considered whenever one sees a patient from a rural area who has acute and chronic alcohol ingestion, and also drinks illicitly distilled alcohol. The clinical findings should be associated with the presence of basophilic stippling, preferably in both the peripheral blood and the bone marrow. The presence of hypochromic anemia associated with significant reticulocytosis is of additional value. If these laboratory findings are present, it is then recommended that treatment be instituted with Ca EDTA. An improvement in the clinical course should be expected. Failure of improvement suggests that other etiologies may be present. In our experience Ca EDTA has remained an effective therapeutic agent but its use should be limited to those patients who are definitely symptomatic from the presence of excess lead in their bodies.

Medical Service, Veterans Administration Hospital, and Department of Medicine, Emory University School of Medicine

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THE ROLE OF VESICOURETERAL REFLUX IN URINARY TRACT INFECTIONS

John R. Woodard, M.D., *Atlanta*

■ **The presence or absence of reflux is crucial in the treatment of urinary infections.**

In spite of the vast number of recent articles concerning the various aspects of vesicoureteral reflux, wide areas of controversy remain regarding its pathogenesis, significance, and management. This article will attempt to place reflux in a proper perspective so far as childhood urinary tract infections are concerned.

Resistance to Infection

It has long been evident that the normal urinary tract has a great natural resistance to infection. Cox and Hinman documented the role of periodic effective emptying of the bladder, showing that although normal voiding is an important factor, it will never by itself completely eliminate bacteriuria. It has been shown that normal subjects will have sterile urine in less than 72 hours after inoculating their bladders with large numbers of bacteria.[5] There must therefore be an additional defense mechanism, usually referred to as "the intrinsic antibacterial factor." What this is exactly remains vague, although laboratory experiments suggest that it is interfered with by an increase in the intralumenal pressure of the urinary tract.[12] An increase in the pressure within the lumen of the urinary tract renders it more vulnerable to infection by slowing circulation within the bladder or ureteral wall. This intrinsic antibacterial factor is probably a phagocytic response which is hampered by a decrease in blood flow. There are, then, at least two local factors that impair the natural resistance of the urinary tract to infection: (1) incomplete emptying and (2) increased pressure within the urinary tract.

Exactly what is vesicoureteral reflux and how does it fit into this picture? By definition, it is the regurgitation of urine from the bladder back into the upper urinary tract. On the basis of several experimental studies in which cystograms were performed on normal children, the present consensus is that reflux rarely, if ever, occurs in a normal individual under normal circumstances.[4, 7]

Pursuing logic alone, let us suppose how reflux might interfere with natural resistance to infection. First, where reflux occurs, complete emptying does not. Voiding might be compared to squeezing a banana in the middle, and that urine which refluxed would, in effect, constitute residual urine. Second, reflux during voiding transmits into the upper urinary tract intralumenal pressures higher than would ever occur under normal circumstances, thereby very possibly altering the other natural defense mechanism.

Once the defense mechanisms are compromised, bacteria must have access to the system. Most clinicians readily accept the presumption that bacteria gain entrance by coming up the urethra, and they cite the greater incidence of infections in females as ample evidence. Whereas this may be true, it is difficult to prove. Investigators have painted *Serratia marcescens* (fluorescent nonpathogenic bacteria) on the vulva and urethral meatus of little girls and have not been able to recover that bacteria from the urine.[8] Others have dunked little girls in a bathtub filled with a suspension of finely-powdered charcoal and have not been able to demonstrate conclusively the charcoal in the urine.[6] But whether or not bacteria gain entrance up the urethra, it would appear that from time to time bacteria do gain transient entrance into the urinary tract.

Cox and Hinman introduced bacteria into the bladders of normal human volunteers and nothing happened. But if one puts bacteria into the bladder of a rat, he regularly gets pyelonephritis. Rats routinely reflux.[11] Guinea pigs, on the other hand, do not reflux, and a single bladder contamination is

From Emory University Clinic (Urology Section) and Henrietta Egleston Hospital for Children.

almost always neutralized rapidly and completely. Chronic infection in the guinea pig can be established, however, by introducing a foreign body into the bladder, producing reflux and leading to ascending pyelonephritis.[13] Experimentally, then, the competent ureterovesical junction appears to protect against ascending pyelonephritis and also appears to be a factor in the complete and rapid natural elimination of bacteria.

Clinical Correlations

Our real concern is not what happens in rats, guinea pigs, or even human volunteers, but what happens in infants and children with urinary tract infections. Ambrose and Nicholson's study of ureteral reflux in duplicated ureters nicely demonstrated that where reflux occurred in only one segment of a double kidney, it was always the renal parenchyma drained by the refluxing ureter that revealed chronic pyelonephritis, whereas the changes of pyelonephritis were not evident in the parenchyma drained by the nonrefluxing ureter.[2]

Figure 1 is a tabulation of the findings in 60 consecutive pediatric patients investigated by the author for urinary tract infection at the Henrietta Egleston Hospital for Children. The presence of reflux in 55% was by far the outstanding feature in this series of unselected patients. It is evident that reflux may exist alone or in conjunction with another lesion, the most important being a bladder outlet obstruction. The proper relationship between bladder outlet obstruction and reflux is the basis for a major urologic controversy and will not be discussed here. It is noteworthy that only 18% of these children with documented urinary tract infection had a completely neg-

FIGURE 1

RESULTS OF UROLOGIC INVESTIGATION OF 60 INFANTS AND CHILDREN WITH URINARY TRACT INFECTION (OCT. 1964-FEB. 1966)

Findings		No.	Percent
Vesicoureteral reflux		33	55
With definite outlet obstruction	5		
With suspected outlet obstruction	3		
With neurogenic dysfunction	2		
Meatal or distal urethral stenosis		9	15
Bladder neck obstruction alone		5	8.3
Upper urinary tract obstruction		2	3.3
No demonstrable lesion		11	18.3
Total		60	

FIGURE 2

AGE DISTRIBUTION OF 33 PATIENTS WITH REFLUX

Years	
0- 1	6
1- 2	5
2- 3	7
3- 5	7
5-10	4
10+	4

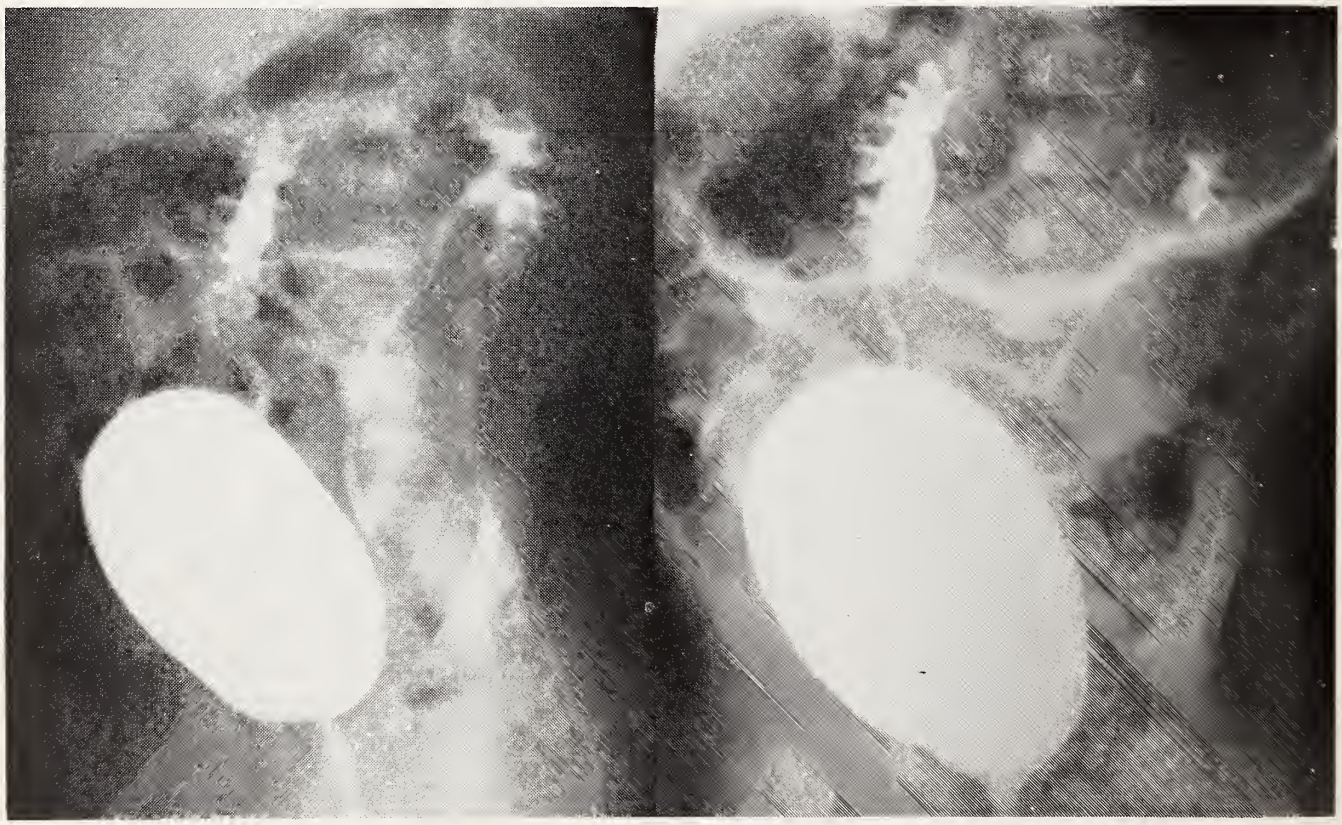

FIGURE 3

Cystogram on left at age two months reveals bilateral vesicoureteral reflux in the presence of sterile urine. Cystogram on right at age four and one half months still reveals bilateral reflux, and the infant had bacteriuria.

ative urologic workup. When the patients with reflux were tabulated according to age (Figure 2), there did not appear to be any suggestion that the anomaly disappeared with increasing age.

This series of 60 patients with urinary tract infection shows a high incidence of reflux. In view of the data already mentioned, the logical assumption is that reflux must have some causal relationship to the infection. There are some who would reason, however, that infection was the cause of the reflux. It is true that transient reflux might occur secondary to an established infection, presumably because of rigidity at the ureterovesical junction. Experimentally one can produce such reflux by creating edema in the bladder wall by the injection of saline.[3] Figure 3 will help to demonstrate what is logically the more realistic sequence of events. The film on the left is a cystogram that was done on a two-month-old infant simply because she had a congenitally absent left eye and her pediatrician was searching for associated abnormalities. She had normal urine. When examined two and a half months later, she had pyuria, bacteriuria, and her follow-up cystogram (on the right) still showed bilateral ureteral reflux. Reflux preceded her infection.

In order to be confident that reflux is a major causal factor in urinary tract infection, one must be able to show that the chain of events is broken by correcting the reflux. Of 43 children with urinary tract infection and reflux who had successful surgical correction at the New York Hospital, 25 were completely free of evidence of urinary tract infection and off of antibiotics an average of two and a half years after operation. Of the remaining 18 patients who still had mild or intermittent pyuria, virtually all were free of symptoms.[9]

Conclusions

(1) Normal urinary tracts are highly resistant to experimental infection. (2) Reflux rarely, if ever, occurs under normal circumstances. (3) The presence of reflux renders the urinary tract highly susceptible to experimental infection. (4) Reflux is a prime vehicle for disseminating a lower urinary tract infection to the kidney. (5) Correction of reflux in patients with infection usually allows the infection to be eradicated and the urine to remain normal without antibiotics.

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THE OPPORTUNITY FOR PREVENTIVE MEDICINE IN OBSTETRICS

Joseph R. Swartwout, M.D., *Chicago, Illinois*

■ **The most exciting possibility for fetal preventive medicine is in preventing future disease.**

THIS DISCUSSION has as its purpose, not the enumeration of the usual preventive medical practices of obstetrics, but the extension of preventive measures so that the unique opportunity that pregnancy presents can be used more advantageously. It is hoped that professional people in obstetrics and public health will be challenged to think of other ways in which the health of the individual, the family, and the community can be better served by taking advantage of the care aspects of human reproduction.

Examination by a Physician

Pregnancy has become widely accepted by the public as a reason for a young healthy person to be examined by a physician. The male partner, except for the requirements of military service, will probably not be examined by a physician until he has developed some serious illness. But because the female partner who is pregnant has a reason for being examined when she is apparently healthy, the obstetrician is presented with a great opportunity for practicing preventive medicine. In addition early discovery of hidden disease processes and initiation of therapy, all of the pre-disease preventive measures are available to the obstetrician.

The patient with which this discussion is concerned is not only a mother-to-be, but is also a key person in the matter of the health of the whole family. Thus, the doctor-patient relationship that develops over the time of gestation provides an unequalled opportunity for health education that will benefit not only the patient but the whole family, now and on into the future.

The effect of good nutrition upon the outcome of pregnancy is well accepted by the public and the medical profession. The obstetrician usually does some nutrition education verbally, or with pamphlets or with specific diets. But suppose he went just a little bit further. The woman with whom he is dealing is the head nutritionist for the present and the future family. Usually when she is having her first baby she has not been family nutritionist for very long and is amenable to change. At this time nutrition education by any of several means can have profound influence on the future diet of her family. Overnutrition is the principal type of malnutrition seen by most physicians. When the obstetrician sees an obese patient he should not only think of the pregnancy complications of obesity, but he should be concerned that the chief dietitian of the family is obviously malnourished. Indeed it would be theoretically possible for obstetricians to decrease the coronary occlusion rate for husbands in their community by urging good family nutrition habits upon the pregnant woman in the earlier years of a couple's reproductive life.

Family Planning

The medical advantages of child spacing and family size limitation are well established. But family planning can prevent other complications as well. If the family size increases so much and so rapidly that the father in desperation deserts, the mental health of every person concerned is affected, but the particularly bad effect is upon the children growing up in a fatherless home. If a family is in the lower income brackets, too many children can slice the individual's share of family economics so thin that disease results from malnutrition, poor clothing and inadequate shelter. Or with the families who are better off economically, too many children can mean less education beyond the high school level resulting in less productive citizens.

The father is a neglected part of the reproductive team. The state of his health prior to conception theoretically should have some influence upon the health of the child. We have much concern about

From the Department of OB-GYN, The University of Chicago, 5841 South Maryland Avenue.

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maternal rubella in the first trimester of pregnancy, but no concern about the father having had a febrile illness six weeks before conception. If we are really concerned about the health of human reproduction, then we must look for all possible sources of abnormality and, when possible, eliminate them. The planned child can have the advantage of a prior state of good health of both mother and father, if the physician responsible for human reproduction urges such planning.

Genetic Counseling

The discipline of obstetrics should consider itself the guardian of the health of future generations as well as of the emerging generation. Not every physician is an expert in human genetics, but every physician has some knowledge of genetically caused diseases. It is the physician's duty to give to his reproducing patients the benefit and the limits of his knowledge and wisdom in this regard. The physician should also ascertain where good genetic counseling is available and suggest to patients needing it, a consultation in this field.

Fetal Preventive Medicine

During the first trimester of pregnancy, prevention of infection and protection from toxic substances are important to prevent congenital anomalies caused by interference with organogenesis. Throughout pregnancy certain well-known infections and poisonous substances can cause death or deformity of the fetus —syphilis, androgenic drugs, carbon monoxide, etc. But for the future,, physicians dealing with human reproduction should be aware of the possibility that of the many new or to-be-developed chemical entities in industry, agriculture, home products, or medication, some could adversely affect the fetus. If such property of these substances is discovered promptly, much human suffering can be prevented. Every physician dealing with reproduction should be part of the search team for such effects.

The recent work in the Rh sensitization problem with fetal blood transfusions[1] and the prevention of sensitization[2] in the mother are encouraging in that we will have an increasing number of therapeutic tools to prevent death and disability of the fetus and newborn. The most exciting possibility for fetal preventive medicine is in preventing future disease. As scientific knowledge increases, we may be able to separate congenital from hereditary effects and devise ways of improving geriatric health by varying the prenatal course of events. If there is any maternal effect on the developing body and physiology that would make this child more susceptible to coronary occlusion or hypertension or any other disease in the future, we must try to alter the events.

One of the leading causes of death from heart failure and stroke in young women is the acute cardiovascular disease, pre-eclampsia, eclampsia. When good obstetrics practice prevents this disease from occurring, it is not preventing just a complication of pregnancy, but it is preventing acute heart disease and cerebral vascular accidents. In the same manner, when toxemia does occur, good therapy, to limit the extent of the hypertension and the work load on the heart, prevents stroke and pulmonary edema.

The obstetrician has an important opportunity to discover undiagnosed heart disease. When heart disease is found, measures can be taken to prevent failure from occurring during pregnancy and the patient can be referred to a cardiologist for continued follow-up to insure the longest, healthiest life for the patient. The obstetrician should be able to distinguish pathologic murmurs from the physiologic murmurs of pregnancy. Since mitral stenosis is the predominant lesion in approximately half of all heart disease in pregnancy,[3] he should be able to discern a presystolic rumble. The obstetrician should ascertain that all his patients who have a history of rheumatic fever, or in whom he has detected signs of rheumatic heart disease, are put on a regimen of rheumatic fever prophylaxis. In addition, all patients who have a history of rheumatic fever, rheumatic heart disease, congenital heart disease, or cardiac surgery should receive bacterial endocarditis prophylaxis at the time of parturition.

The hypercoagulability and venous congestion of the lower half of the body in pregnancy make the obstetrical patient more susceptible to thromboembolism. Although this disease now seems impossible to eliminate, certain precautions may decrease its incidence. Any additional causes of venous stasis in the legs should be avoided. The leg encircling garter has long been a concern to obstetricians. In modern life the seat belt, bucket seats and television tend to cause long periods of time to be spent sitting in one position. The pregnant patient should be encouraged to move her legs periodically when traveling, walk about occasionally when watching television, and to avoid chairs that cause pressure on the lower posterior part of the upper leg or on the popliteal space.

The Kidneys

As with other organ systems, the obstetrician has the opportunity to discover renal disease because he examines the patient. But one renal disease seems to me to stand out in importance in its relationship to obstetrics. Chronic pyelonephritis is present for a number of years before it becomes a terminal irreversible disease. It is more common in women, many of them are middle-aged when they die, and most

have histories of renal infections in pregnancy. The obstetrician, because of the ease with which symptoms are abated in pregnancy and because he does not see these women die several years later, is apt not to be impressed with the importance of these infections. In fact the benign sounding term "just a little pyelitis" is used very frequently. Yet, most of the women who die of chronic pyelonephritis have a history of repeated urinary tract infections during pregnancy and have been seen by an obstetrician during the time that the progress of the disease could have been halted. A real concern by the obstetrician for the importance of urinary tract infections could insure for more of these women a normal life span, and for their children, a mother through the later stages of growing up.

Immunizations

A great variety of immunization procedures are available to the obstetrician, but as an example of the opportunity for preventive medicine, one specific type will be discussed. What would happen to the community level of immunization for tetanus if each pregnant woman were urged to take a full immunizing course of tetanus toxoid? What would happen to the community level of immunization if the obstetrician urged the patient to see to it that her husband was immunized so that the child she is carrying may have a better chance of having a father as it grows up? Probably the whole family would become protected against tetanus if the mother were convinced of the importance of it.

Mental Health

The obstetrician has an opportunity shared with the pediatrician for the intimate contact with young families that permits better evaluation of the mental health of the family and the individual members. However, the obstetrician has an additional opportunity of knowing the problems of sex relationships that may exist. By recognizing early signs and by instituting or securing proper therapy, many of the mental health problems of pregnancy or of families can be prevented or controlled.

Diabetes Mellitus

Because the woman who will develop diabetes frequently has obstetrical complications for several years before developing frank diabetes, there is an opportunity to diagnose or suspect the pre-diabetic state. This means that the obstetrician can be forewarned about possible reproductive abnormalities and take measures to prevent them. In addition, because there is a direct relationship between early treatment of frank diabetes and longevity, the obstetrician can recommend to his pre-diabetic patient a meticulous medical watch for the onset of diabetes mellitus.

Accident Prevention

The pregnant woman is quite clumsy. The speed of her reflexes seems to be slowed, and the later changes in body weight distribution make for an awkward gait. It is interesting to note how many pregnant women have burns on the forearm from irons or hot grease. Women should be warned about possible clumsiness so that they can protect themselves. Pregnant women have been seriously injured by improper positioning of seat belts. If the seat belt is placed high on the uterus or above it instead of low around the hips, in a collision internal injuries may result.[4] Pregnancy is a very good time to begin warning women about poisoning in children, because of access in the home to dangerous substances. It is also a good time for general home accident prevention education because the pregnant woman is keenly aware of her homemaking responsibilities.

Conclusion

Many opportunities exist for preventive medicine in the doctor-patient relationship that ensue with the obstetrician and the pregnant woman. Public health officials can take advantage of this by supplying the obstetrician with information and educational materials. Obstetricians can take advantage of this using present knowledge to prevent many specific diseases.

The goals of preventive medicine in obstetrics should be these:

1. To produce the best possible brain in the new individual.
2. To produce the best possible body for the new individual.
3. To discover ways to prevent future disease in the new individual.
4. To insure that the physical and mental health of the family are such that the new individual can develop into a well-balanced, healthy, productive person.

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LUPOID HEPATITIS

Carl M. Nechtman, M.D.,* *Nashville, Tennessee*

■ **Although this disease has been observed and described repeatedly in the past twenty years, the etiology remains unknown.**

History:

As early as 1944, Eaton and co-workers described recurrent hepatitis with associated hypergammaglobulinemia and considered it to be an autoimmune disease.[1] In 1951, Kunkel described a group of young females with chronic liver disease characterized by extreme degrees of hypergammaglobulinemia and serum protein patterns which distinguished them from other types of liver disfunctions.[2] In 1953 Saint described the clinical and laboratory features of this liver disfunction which was considered to be a chronic active hepatitis.[3] The clinical characteristics were noted to be those of fever, jaundice, hepatosplenomegaly, spider angiomata and occasional ascites. The laboratory findings in these individuals included hypoalbuminemia, hypergammaglobulinemia, derangements in liver function tests, such as, positive cephalin flocculations and thymol turbidity, and high erythrocyte sedimentation rate. These cases of chronic active hepatitis were all confirmed by liver biopsies. Later Bearn, Kunkel and Slater noted the features of polyarthralgias, arthritis, pericarditis and pleural effusion.[4]

In 1955, Joske and King described positive lupus erythematosus cell preparations in two young women with chronic active hepatitis.[5] In the same year, Bettley reported positive lupus erythematosis preparations in a woman with viral hepatitis.[6] Heller and co-worker in 1956 described positive lupus erythematosus cell preparations in two women who had post-necrotic cirrhosis.[7]

Demonstrated Features

In 1956 Mackay, Taft and Cowling published a study of seven cases in which the individuals showed clinical and biochemical evidence of chronic hepatitis.[8] All of these patients demonstrated the common features of chronic active hepatitis and histological features consistent with persistent liver damage. Of the seven patients studied, six were females and one was male. The age range was from 16 to 66 years and positive lupus erythematosus preparations were obtained in each individual at some point during the course of the disease. Because of the positive lupus erythematosus preparations and the arthralgias, rashes, hemolytic anemias and nephropathies demonstrable in these individuals, as well as their age and sex distribution, Mackay suggested a relationship of this liver disease to systemic lupus erythematosus. With this relationship Mackay considered this disease a syndrome and proposed the name "Lupoid Hepatitis." The criteria for Mackay's proposed name of Lupoid Hepatitis was the demonstration of positive lupus erythematosus preparation at some point in the course of the disease, and he chose to consider the disease, when not associated with lupus erythematosus cell, chronic viral hepatitis.

Because of the inconstant finding of lupus cells with progressive liver disease associated with features commonly observed with lupus erythematosus; such as skin rashes, polyarthralgias, arthritis, hemolytic anemia and nephropathies, various authors have suggested various names for liver diseases associated with these features. Eaton originally considered the disease with which he was dealing active hepatitis.[1] Kunkel originally referred to the disease as a liver disease of unknown etiology,[2] and later Bearn, Kunkel and Slater referred to it as chronic liver disease in young women.[4] Bettley and Joske and King considered the disease chronic hepatitis with a viral etiology and called it chronic viral hepatitis.[5, 6] Because of the histological findings Page and Gold have used the name plasma cell hepatitis.[9] Blackburn referred to it as progressive hepatitis[10] and Sherlock

* *Dr. Nechtman is a 1966 graduate of the Medical College of Georgia, Augusta. The above scientific paper was written as Dr. Nechtman's senior presentation.*

and co-workers call it active "Juvenile" hepatitis.[11] Maclachlan and co-workers use an all inclusive nomer of chronic active (lupoid) hepatitis.[12]

Eaton proposed a possible mechanism for the perpetuation of the pathological process of chronic hepatitis.[1] His explanation was based upon the formation of antibodies to antigens within the liver cells, and he was able to demonstrate positive reactions to autoimmune complement fixation tests.

Joske and King, in a case study of chronic viral hepatitis in which lupus cells were demonstrated, offered three possibilities for the mechanism of this progressive liver disease.[5] The possibility that the disease is actually systemic lupus erythematosus with concomitantly existing lupoid hepatitis is countered with the argument that both of these are relatively rare diseases and coexistence of the two is statistically unreal. A second possibility is that this disease is in reality systemic lupus erythematosus with liver manifestations, but this appears unlikely because liver involvement associated with lupus erythematosus is not a striking clinical problem, and also the abnormalities of liver function in lupus are related to protein metabolism. Also, there are some histological differences in the two diseases. Their third suggestion is that the disease is that of chronic viral hepatitis with production of lupus cells, the mechanism of which may be due to abnormal antibody production or the loss of self identity of tissues due to chronic infection or chemical agents.

Bearn and co-workers in their discussion of one patient with chronic active hepatitis who demonstrated lupus cells, suggested a relationship to the collagen diseases as well as possible viral and hormonal disturbances.[4] Heller has related the formation of lupus cells to liver disease or hypergammaglobulinemia.[7]

In a Case Study

In a case study of the lupoid hepatitis syndrome by Fischer, the possibility of extrinsic factors in the pathogenesis of the disease process is discussed.[13] Etiologically these extrinsic factors may be related to bacterial products, toxins, viral agents or enzymes. Three suggestions for the mechanism of progression of the disease are given. One possibility is that liver necrosis secondary to parenchymal pathology may result in the liberation of intracellular proteins, and that these proteins may in turn act as antigens to which antibodies are produced. It may be necessary to assume that for this mechanism to exist, a basic derangement in the immune system must be present. Secondly, liver cell necrosis may liberate cellular proteins which in turn combine with extrinsic agents, as haptenes might, and liver specific antibodies are produced. Continuous exposure to haptenes may result in further progression of the disease. Another possibility is that infection with viruses results in an antibody formation which fixes to liver cells. This antibody essentially renders the cell sensitized and further challenges with antigens or antigenically related agents; such as the same virus, cross reactions with nuclear proteins or bacterial cells, causes necrosis.

Mackay considered the mechanism for progressive disease to be due to antigenic properties of liberated liver cell proteins which provided antibody response.[8] The basic disease could be anything which could account for liver cell necrosis, and the progression through chronic active hepatitis ultimately leads to cirrhosis which histologically resembles postnecrotic scarring. Further clinical evidence of such a mechanism was suggested by Bartholomew who observed young females with hepatitis and cirrhosis who developed chronic liver disease several months to years after illness which presented with clinical features compatible with systemic lupus erythematosus.[14] Maclachlan states that the majority of their 20 cases originated with attacks of viral hepatitis.[12]

Clinical Observations

A general inspection of clinical observations of lupoid hepatitis emphasizes the multisystem involvement of the disease. Rodman and Maclachlan have summarized many features which have been described with the disease lupoid hepatitis.[12] It is stated that it is a disease primarily of young females. The age distributions which have been reported range from ten to 70 years with the preponderance being in the 20's. Race distribution has not been specific. Patients usually give a history of injections, and contact with persons known to have hepatitis, and in a minority of cases alcohol ingestion has been noted. The most frequent symptom given is jaundice at the onset or within ten days. Other manifestations which have been reported as presenting symptoms are joint pains, recurring fever, pleurisy and secondary amenorrhea. Symptoms may precede clinical evidence of liver disease by months. A feature which has served to differentiate lupoid hepatitis from acute viral hepatitis is the infrequency of gastrointestinal complaints and abdominal pain in the former disease. Jaundice, hepatosplenomegaly, fever (100-102°F), firm tender liver, spider angiomata, in approximately one-third of the cases, and ascites, in approximately one-third of the cases, are commonly found clinically. With the disease in a state of activity, it is common to find serum changes; such as elevation in bilirubin and alkaline phosphatase, and cephalin flocculation and thymol turbidity are positive. Total protein may be reduced and serum gamma globulin concentrations

are elevated. Enzymes which assess liver parenchymal destruction, particularly serum glutamic oxalacetic transaminase, are elevated. These authors state that derangement in these tests is usually proportional to liver disease when gauged by tissue biopsy.

Systemic manifestations, neither related to nor associated with viral hepatitis, have been described—arthritis, polyarthralgias, skin rashes, urticaria, ulcerative colitis, endocrine disfunctions, hemolytic anemia, leukopenia, and thrombocytopenia. Pulmonary involvement of pleurisy, effusion, and pulmonary hypertension have been described. Cardiac involvements have been pericarditis, pericardial effusion, and myocarditis. Kidney involvement may be in the form of glomerulonephritis or the nephrotic syndrome. Splenomegaly and lymphadenopathy may be prominent and convulsions and subarachnoid hemorrhages have been observed.[1, 2, 3, 12, 15-18]

Serum Protein Patterns

Serum protein patterns disclose marked elevation in serum gamma globulin concentrations. One case described by Maclachlan had gamma globulin levels which were elevated as high as 8.5 gm/100 ml.[12] Reduction of serum albumin is primarily related to liver cell production of this protein. Alpha and Beta globulins may be decreased. Reynolds and Edmundson had nine patients out of 13 who demonstrated gamma globulin levels of 6 gm/100 ml or greater which reverted to normal during quiescence of the disease.[19] These authors do not accept hypergammaglobulinemia as a sound basis for diagnosis of this disease, because 20% of the alcoholic cirrhotics whom they observed demonstrated gamma globulin concentration of 6 gm/100 ml or greater. Contrasted to other types of liver disease which may show increases in total serum protein, Kunkel found that in chronic active hepatitis the increase is due solely to the gamma globulin fraction.[2] Osserman and Takatsuki demonstrated strong euglobulin precipitates with demonstrable 19 S peaks after centrifugation in lupoid hepatitis. They suggested that the gamma globulin was incorporated in the euglobulin fraction. Demonstrable increases in the gamma 1A and gamma 2 fractions with decreased alpha 2 lipoprotein were noted.[17] Sherlock reports the highest gamma globulin values observed in liver dsease are found in Juvenile cirrhosis.[21]

Latex Flocculations

Latex flocculations have been reported in as many as 40% to 60% of reported cases of lupoid hepatitis, but there appears to be no correlation between this and arthralgias, arthritis, serological or clinical extent of the disease.[12] There apparently is an increased incidence of rheumatiod factor and a number of positive sheep cell agglutination tests and latex flocculation tests in liver disease, but juvenile cirrhosis has shown an even greater incidence in these tests. Patients with juvenile cirrhosis have been shown to demonstrate rheumatoid factor more frequently than positive sheep cell agglutination tests.[16] Antinuclear factors were demonstrated in 42% of 38 patients studied by Sherlock and co-workers.[16] They found no correlation in severity of disease and quantity of antinuclear factor demonstrated, and they could not demonstrate reductions in antinuclear antibodies with steroid therapy. The antinuclear factor titers were shown to be consistently high (1:200) in patients with systemic lupus erythematosus, while only one case of juvenile cirrhosis demonstrated titers of this magnitude. The majority of the cases of juvenile cirrhosis had titers in the range of 1:20. These authors also found that the antinuclear factor of liver diseases is in the gamma globulin macroglobulin fraction, while in systemic lupus erythematosus, it is in the 7 S gamma globulin fraction. Antinuclear factor has been demonstrated in a newborn of a mother with demonstrable antinuclear factor.[12]

Lupus cells were present in 14 out of 18 cases reported by Maclachlan, Rodnan, Cooper and Fennell.[12] They state that the degree of positiveness of lupus cell preparations is variable, and positive cells are generally observed in states of increased activity of disease. Prednisone and clinical remission were associated with negative preparations. It is interesting that positive preparations were not found during concomitant use of anticoagulants.[18] In Mackay's original description of lupoid hepatitis 100% of seven cases were positive for lupus cells seen at some point during the disease.[8] Of a total of 72 cases reported to date by Mackay, 22 have been positive for lupus cells. Maclachlan maintains that the findings of positive lupus cell preparations are intermittent and suggests that a more aggressive search for them would result in higher yields, and all of their patients with positive antinuclear factor (16 out of 18) demonstrated positive lupus cell preparations.[12] Sherlock and co-workers, who have one of the largest series of liver disease patients, demonstrated lupus cells in only six of 38 patients with juvenile cirrhosis but observed no positive reactions in other types of liver disease. Other reports of positive lupus cell preparations have been mentioned previously.[4, 5, 9]

Among the clinical features associated with lupoid hepatitis, are reports of other diseases with demonstrable immune derangements. Gray, Mackay, Taft, Weiden and Wood in 1958 reported eight cases of chronic active hepatitis associated with ulcerative colitis.[15] Four of these cases showed evidence of systemic lupus erythematosus and four showed evidence suggestive of systemic lupus erythematosus. It is

known that one of the most common lesions associated with ulcerative colitis is fatty infiltration of the liver. Hoffbauer observed 284 cases of ulcerative colitis four per cent of which had associated cirrhosis. The question of common etiology of liver disease and ulcerative colitis is raised, and evidence of common etiology exists in that four of eight patients described by Gray and co-workers demonstrated positive lupus cells. Associated lesions of thrombocytopenia, arthralgias, asthma, positive Coombs' test and visceral lesions were observed in others;[15] while on the other hand, demonstrable thyroid antibodies did not differ from the incidence seen in patients free of liver disease studied by Sherlock's group, although they did observe nine cases of long-standing ulcerative colitis in 38 patients with juvenile cirrhosis.[16]

Opposed to Concept

Reynolds and Edmundson were opposed to the concept of lupoid hepatitis being a disease of young females.[19] Seven of 13 patients they studied were over 50 years of age and one was a male. Three of the 26 patients Bearn, Kunkel and Slater studied were males and their age group ranged from three to 33 years with an average age of onset of disease being 15 years.[4] Sherlock's group reported 18 males in a group of 38 patients with an average age of 27 years. Their age range was six to 67 years.[16] The age range of Mackay's original seven cases was 16 to 75 years and included one male. Cessation of menses was observed in the eligible female patients observed by Reynolds, and Edmundson, but this was also a common finding in their alcoholic cirrhotics.[19] Bearn, Kunkel and Slater described 15 out of 23 females with delayed or absent menses and five additional patients with irregular menses.[4]

Pathological Features

Reynolds and Edmundson have written a detailed description of the pathological features of lupoid hepatitis.[19] They describe the pathological sequence as slow, continuous and destructive with accompanying inflammatory reaction and proliferation of connective tissue. This process may become quiescent at any stage. Eosinophilic necrosis of parenchymal cells with some of these necrotic cells being found in the sinusoids and diffuse infiltration of round cells is characteristic of the lesion. Occasionally these infiltrative round cells will be found in or around the necrotic parenchymal cells, but most often they are seen in the old foci of necrosis marked by collapse and disruption or cord architecture. Infiltration of plasma cells into the intralobular area is said to possibly indicate a downhill course in the disease. Portal area changes are those of round cell infiltration with neutrophils and eosinophils with accompanying increase in connective tissue. Infiltration exudates appear to inhibit the regenerative process of liver cells and portal and intralobular connective tissue are pushed aside to form septa. Fibroblastic activity in areas of lobular collapse may contribute to scar tissue formation.

Features which may serve to differentiate lupoid hepatitis from viral hepatitis histologically are the distribution and uniformity of lobular size being out of proportion to the amount of necrosis in lupoid hepatitis, marked proliferation of Kupffer cells, in lupoid hepatitis, which lack lipochrome pigment in their cytoplasm, and the rarity with which hydropic swelling of cells is seen in lupoid hepatitis. The presence of continuing necrosis even without positive lupus cell preparation suggests lupoid hepatitis, and round cell infiltration suggests autoimmunity.

Mackay described two cases prior to the demonstration of positive lupus cell preparation and found one showed active regeneration and fibrosis, while the other showed round cell infiltration with dense aggregates of lymphocytes, plasma cells and histiocytes.[8] Kunkel reported nine out of 13 patients with plasma cell infiltration, and these cells represented 30% to 40% of the nucleated interstitial cells.[2] Plasmacytosis was sought but not found in sternal marrow biopsy. The plasma cells in the liver apparently diminish in number with the course of disease. Other reports of histological features are consistent with these.[12, 16, 18, 20] The ultimate end to the progressive fibrosis is post necrotic cirrhosis.

Treatment

Osserman and Takatsuki divided the indications for steroid usage in liver disease into three groups.[17] One group is based upon the direct treatment of the underlying liver disease and includes such diseases as acute infectious hepatitis, cholestatic jaundice, fulminant hepatitis, relapsing hepatitis, and active juvenile cirrhosis (lupoid hepatitis). Another group includes the use of steroids as an adjunct to diuretic therapy, as in cirrhosis with ascites, and the third group is for diagnostic purposes to differentiate hepatitis with obstructive features from extra hepatic jaundice.

Joske and King report the use of steroids in one case of lupoid hepatitis with fair relief of symptoms.[5] Mackay reported on 11 patients he studied[14] and three previously reported by O'Brien.[21] Immediate relief in four patients, moderate remission in one patient, and four cases with only slight results were described. It was his opinion that steroids may be of value only in acute acceleration of the disease. Reynolds and Edmundson found it difficult to evaluate

steroid therapy due to the histological progress which may occur in the face of steroid quiescence. Maclachlan, Rodnan, Cooper and Fennell obtained favorable results with steroids with repression of clinical and laboratory studies while one patient showed no additional fibrosis, but they were unable to state that steroids decrease or arrest the pathological process.[12] Bearn, Kunkel and Slater reported improvement of clinical disease with the use of steroids.[4] Page and Good treated six cases without clinical improvement but did obtain moderate histological improvement. Four of their cases with slight elevation in the serum globulin treated with steroids showed little effect and they concluded that the best results were obtained with high serum gamma globulin concentration.[9] They did notice regression with withdrawal, Willcox and Isselbacker on five cases under the age of 22 years, and only one showed improvement on steroids.[22] Mackay and Wood adjusted steroid dosage to maintain SGOT levels within normal limits and showed favorable short term results in seven out of 15 patients who showed definite improvement after having been treated continuously for three months.[23] They are impressed with the greater efficacy of steroids over bed rest and tetracyclines. Nine out of ten of their patients were noted to relapse when steroids were reduced below 15-20 mgm a day. Maclachlan reports only one case without symptoms after withdrawal.[12] Read, Sherlock and Harrison have perhaps the best follow-up study of a large group in which they assessed steroid therapy.[11] They found the majority of a group of 43 patients showed improvement with reduction in temperature, and jaundice and bilirubin in 42 or 53 courses of therapy. Thirty-one patients showed a decrease in serum gamma globulin with some reverting to normal electrophoretic patterns. In 12 cases followed with multiple biopsies, six showed improvement, two unchanged, and four deteriorated. In eight untreated cases, four showed improvement, two showed no change, two deteriorated. Long term therapy was doubtful. The mean duration of life in 12 treated cases was 3.1 years and in 14 untreated cases, 3.5 years. The most sensitive index of treatment appeared to be SGOT and many patients required 10-20 mgm maintenance-steroids. There was no evidence of prolongation of life.

Summary

The syndrome of chronic liver disease, hypergammaglobulinemia, and progressive liver failure has been described many times in the past 20 years. It has been called lupoid hepatitis, because of its association with positive lupus erythematosus cells and other features suggestive of lupus erythematosus; progressive hepatitis, because of its relentless course; plasma cell hepatitis, because of the associated histological findings; active juvenile cirrhosis, because of the age distribution in which it is found, and chronic active hepatitis.

The etiology of this disease is unknown, although several theories have been proposed, the most popular of which appears to be that the disease is an autoimmune disease, and several mechanisms have been proposed to explain the progression of the pathology seen in this disease.

A broad range of clinical observations associated with this disease have been noted which emphasize the multisystem involvement of the disease. Because of these multisystem involvements and the frequent finding of positive lupus erythematosus preparations, comparisons of the disease have been made to systemic lupus erythematosus. Also noted have been the overlaps of pathological and serological observations in "lupoid" hepatitis and systemic lupus erythematosus.

Treatment with steroids have been proposed based upon the rationale that this disease represents derangement in the immune mechanism, but evidence for this efficacy of steroid therapy is contradictory.

Vanderbilt University Hospital

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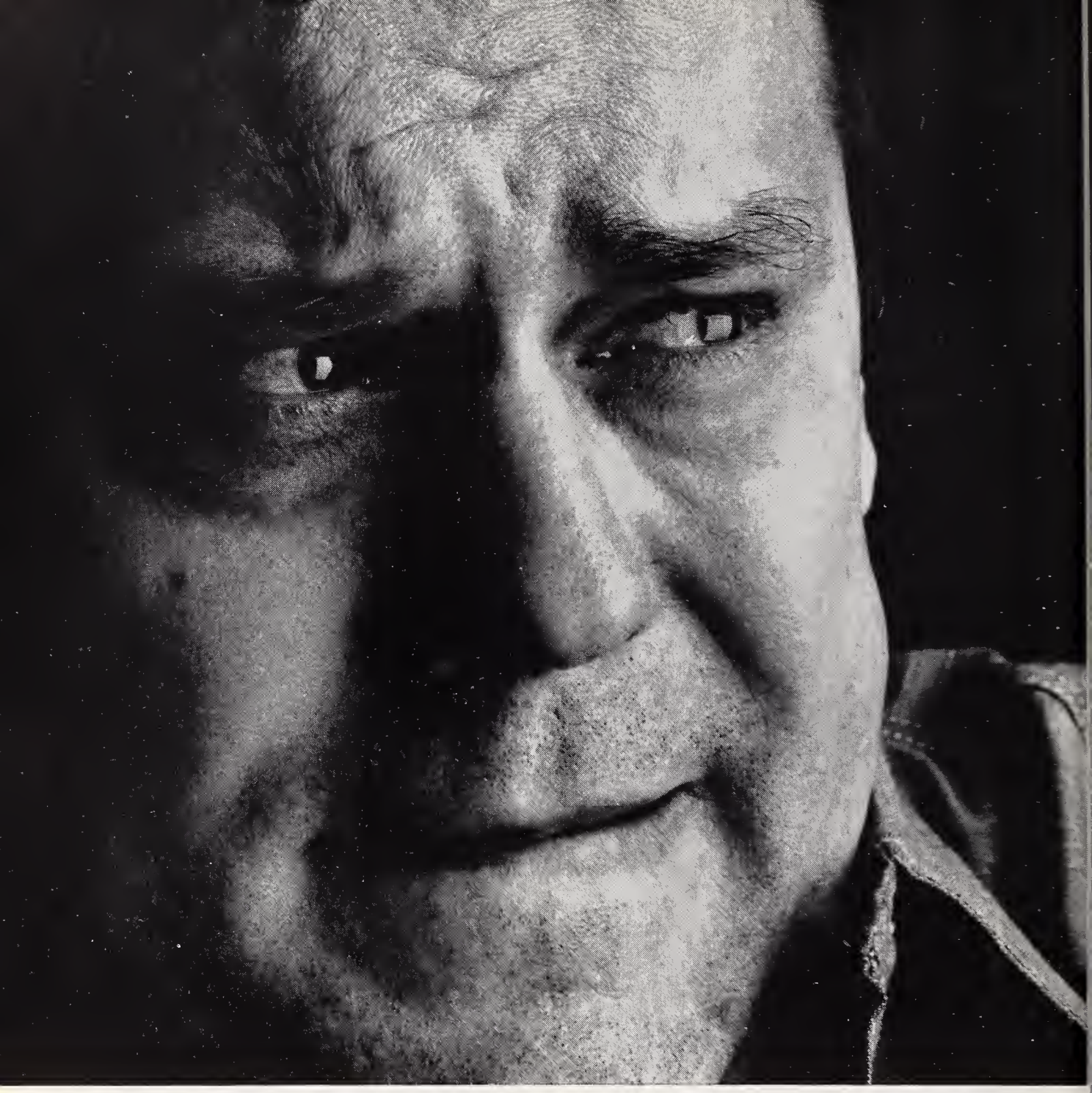

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NEW CHALLENGES and NEW RESPONSIBILITIES

L C. Duncan, *Washington, D. C.*
Chairman of the Board,
Pharmaceutical Manufacturers Association

There is an old saying in Wall Street that the only safe prediction about the future of stock prices is that they will fluctuate.

The action of the stock market in recent months has taught a good many of us the wisdom of that old maxim.

Firmly in Mind

I, for one, intend to keep it firmly in mind this morning in discussing the future of the drug business. In fact, the only broad prediction I am willing to make is that there are many changes in store for us as we enter this new era of medical care. What they will all be, I don't pretend to foresee.

There is, however, one fundamental change already in the making which I do know something about and which concerns me deeply. It is one that will impose a new and heavy burden of responsibility on every one of you in the pharmacy and retail drug field.

I am referring to the rising tide of what, for want of a better name, I will call "bootleg drugs." By drugs, I do not mean narcotics. I mean the steroids, the antibiotics, the diuretics and the whole broad field of ethical pharmaceutical products with which you are all so familiar. Under "bootleg" and "bootleggers" I include the smugglers, the counterfeiters, and all the illicit makers and purveyors of drugs of unknown or unspecified origin.

As some of you may know, I have been compelled by circumstance to acquire some knowledge of pirating and other criminal activities in the drug field because my company has been one of the unhappy victims of their depredations.

The theft of cultures which produce antibiotics, and of processes and know-how for the manufacture of other drugs; the smuggling of pharmaceutical products from abroad and across the borders of Canada and Mexico—these activities have received considerable publicity because of recent court cases. Most of you have probably heard something about them.

Fortunately, a hot pursuit by the F.B.I. and successful prosecutions by the Department of Justice have put a number of these criminals behind bars, where they are spending their time repenting their sins—or, more likely, plotting new ventures, for reasons I'll tell you about later.

But these events, important in themselves, are only a prelude to what I fear is the beginning of a turbulent time in the drug field. What disturbs me is that in many ways it bears an ominous resemblance to the Prohibition Era of the Twenties.

The smuggling of pharmaceutical products from abroad is not new. Nor is their theft, illicit manufacture in the United States and distribution through subterranean channels. Even the counterfeiting of capsules and tablets of well-known brands, and the illegal reproduction of their exact labels and packages have been taking place on a minor scale for a long time. The point is that in the past such activities have been insignificant.

Why? Because there was little or no market for such products.

What has changed is that the market for unbranded drugs of uncertain origin has increased enormously. A former market measured, at most, in the hundreds of thousands of dollars now has a potential of many millions.

The Name of the Manufacturer

In the past, doctors, druggists and hospitals, with no facilities for testing the products themselves, placed their reliance on the name of the drug manufacturer as a guarantee of potency, purity and safety. It did not matter whether the maker was large or

Presented at the 68th Annual Convention of the National Association of Retail Druggists, St. Louis, Missouri, October 25, 1966.

small, or whether he sold his products under brand names or generic names.

What did matter was that over a long period of years the manufacturer had built up and jealously guarded his reputation for high quality products, exacting inspection procedures, effective research, and, in general, the conduct of a highly *ethical* business.

One of my competitors has a slogan which expresses the matter succinctly: "Our integrity—the priceless ingredient."

The physician, the pharmacist and, most importantly, the patient, placed their reliance on this integrity and ethical conduct—and it seldom let them down.

This safeguard which heretofore has served us so well is now under attack and is in danger of being demolished. It began with an assault by the Kefauver Committee on drug prices and brand names and was given great impetus by the Drug Amendments of 1962 which followed those hearings.

Principal Purposes

One of the principal purposes of the new Amendments, according to their sponsors, was to bring down drug prices. This they proposed to do by placing full responsibility on the Food and Drug Administration for seeing to it that all drugs available on the market, from any source, were fully potent, pure and safe. This desirable objective was to be accomplished by the registration of drug manufacturers, testing and inspections, and general policing activities.

Relying on these new safeguards, the government and others have instituted a program to promote the use of unbranded drugs on the grounds that with the proper inspection, presumably now provided, one drug is as good as another, regardless of source, and price should be the only consideration.

You may well ask: "And what is wrong with that? Isn't the Food and Drug Administration adequately staffed and fully qualified to cope with the enforcement problem?"

I won't attempt to answer that directly. But I will say that if I had the job of Chief Enforcement Officer I am afraid that the spectre of the old Volstead Prohibition Act would rise to haunt me.

To begin with—in order to inspect anything you first have to find it. I would recall the army of "revenooers" combing the misty "hollers" of the Kentucky hills in a vain attempt to locate the source and dam the flow of illegal booze. The locale of these new drug operators is not the remote areas of the southern Appalachians, but the industrial "badlands" of New Jersey and the jumbled factory and warehousing areas on the outskirts of cities like Chicago and Detroit. Hidden away among legitimate businesses and protected by respectable fronts, these new illicit enterprises are even more difficult to locate than the old bootleg stills.

Secondly, these new policing problems will require the recruitment and training of an entirely new type of enforcement personnel.

Chief Requirement

Heretofore, the chief requirement for an F.D.A. inspector was some technical knowledge of pharmaceutical products and their methods of manufacture and inspection. In many cases he worked with the plant manufacturing staff to improve the techniques and controls to insure high quality products, as well as to police those already in use. Compliance with the rules and regulations was not difficult to enforce because the manufacturer's good name was his chief stock-in-trade: he could not afford to jeopardize it by adverse publicity even if he were reluctant to comply with particular requests.

The new entrepreneurs in the drug business are an entirely different breed. To find, supervise and control their activities will require not scientifically and technically trained personnel, but a large force of pistol-packing investigators skilled in underworld procedures.

A final problem which would concern me is that, while there are methods of determining potency for most drugs on the market, no battery of tests on the finished product has ever been devised which would enable one to certify that it is completely pure and safe.

Experience Has Demonstrated

In fact, over the years, experience has demonstrated that the only real assurance of highest quality products requires the purchase of the purest ingredients available; the individual testing of each batch of raw material by the drug manufacturer, regardless of how many certificates of quality are provided by the supplier; sampling of batches while in various stages of manufacture by an independent control center; the use of the latest electronic devices to prevent mistakes in filling and labeling; and a quarantine of the final product while all the tests are completed before it is released for sale.

If there are any shortcuts to these exacting procedures to insure high quality products we have not found them.

This situation was summed up by Dr. C. A. Morrell, for many years Director of the Food and Drug Directorate in Canada (corresponding to our own F.D.A.), who stated in his testimony before a

special parliamentary committee concerned with the quality of drugs:

"I am loath to have people say that a drug is guaranteed by the Food and Drug Directorate. I do not see how we can guarantee it. There are many subleties and we do not have the facilities to detect the differences . . . you cannot put 'government approved' on a drug. It is wise to buy on the reputation of a company. You do that in purchases of other items, and I think one is wise to do it with drugs.

"If I were a doctor prescribing, I am sure I would tend to prescribe from companies I know."

The gentlemen who run the rackets and nefarious business enterprises in the United States are already well aware of the new opportunities which have been opened up for them in the field of pharmaceutical products. The features which attract them are all present. In fact, a criminal prospectus might read something like this:

Essentially—Drugs for treating diseases fulfill an urgent human need—as do prostitution, gambling, narcotics and other activities which have always been so profitable.

Market Potential—Can be estimated as high as a hundred million dollars.

Primary Customers—Federal agencies, city, county and state hospitals and all other medical groups and programs financed by public funds because regulations already in effect, or likely to be written, require that their purchasing be done on the basis of competitive bidding. Purchase at the lowest price offered is mandatory unless there are good and sufficient reasons for rejecting the lowest bidder.

Potential Customers—Private hospitals, drugstores, and even dispensing doctors as they participate in Medicare and state public assistance programs, and yield to official pressure to buy and prescribe on a generic basis.

Method of Operation—Fits well with other activities. Permits use of dummy corporations to hide the origin of products, the employment of respectable fronts for distributing them, and the application of the usual persuasive methods, where necessary, to secure new customers and the continued patronage of old ones.

Possible Penalties—Negligible. Violations are only a misdemeanor and the penalty, withdrawal of the product and a small fine. F.D.A. inspectors cannot make arrests. They must persuade a United States attorney to issue a search warrant and have Federal marshals serve it and make arrests, if warranted.

Only the actual counterfeiting of regular pharmaceutical products and traffic in narcotics, goofballs (amphetamines), barbiturates, and like products, carry heavier penalties.

Some of you may think that I have exaggerated in order to make a point. However, one of the people who has already had some considerable experience with trying to cope with these activities is Dr. Roscoe P. Kandle, Commissioner of Health of the State of New Jersey, which is a hotbed of illicit drug manufacturing. Let me quote from a report written by him.

"We know from companies we have closed that there exists the menace of individuals who operate under the guise of respectability and who produce, distribute and sell dangerous drugs illegally. These individuals use unskilled labor to manufacture expensive, highly complex drugs, often in dilapidated factories under filthy, grossly unsanitary conditions. The drugs are made without proper checks and balances or quality control and usually there is no record of what went into their manufacture. . . . These new-style racketeers keep little or no record of distribution and sales. By this device they can avoid detection and taxation. . . . Without hesitation they will infringe patents, imitate and counterfeit standard brands, smuggle materials from abroad. . . .

"They select only the most profitable drugs and recently have turned to tranquilizers, diuretics, cortisone products, cardiac stimulants and others.

"The individuals engaged in these unlawful operations know how, when and where to unload their products at a substantial profit. Government agencies, anxious to buy drugs in large quantities at low cost, are especially susceptible."

You may wonder why you have heard so little thus far about such activities. The answer is that this final chapter is just beginning. The full story is yet to be written but the outline of the form it will take is very clear indeed.

Looking back over the events of the past several years, it seems almost incredible that we should have arrived at the point where we stand today.

Where It All Began

It is difficult to say where it all began. One of the convicted culprits claims that he really started what has been almost a chain reaction by conceiving the idea that drugs could be bought cheaply abroad and supplied to the U. S. Defense Department at bargain prices which would be attractive to them. He apparently assumed—rightly, as it turned out—that the Defense Department would invoke its special privileges and ignore any patents in the United States. I

might add that this individual is bitter about the fact that someone else (according to his version) stole his idea, froze him out and kept him from profiting from it.

In any case, the Defense Department did begin to buy drugs from Italian companies as early as 1959, lured by the savings which were offered by the foreign products. This action by an agency of the United States Government had these consequences:

1) It provided a lucrative market for foreign drugs paid for in hard dollars;
2) It cloaked the activities of pirate drug firms operating in a patent sanctuary with a measure of respectability;
3) It highlighted the differential in price between the products of well-known, ethical companies and those from foreign sources.

Thus, the controversy over drug prices began.

There are those among my colleagues who would say, "Yes, the prices of our drugs are high when compared with those offered in a thieves' market."

"Yes, they are high when the prices quoted by companies who spend millions of dollars on research, clinical testing and inspection procedures are compared with those offered by firms who do none of these things but cut every corner to produce only the popular forms of the most widely-used products."

Those on the other side of the controversy retort that they are also high when measured by the mark-up over manufacturing costs or return on investment.

I am not here to argue one side or the other. My role today is only that of a reporter attempting to chronicle and interpret what really happened.

Attracted Attention

The initial buying of Italian drugs by the U. S. Defense Department was soon followed by the Kefauver Hearings with their great emphasis on one point—the substantial mark-up of drug prices over manufacturing costs. These events received wide publicity and attracted great attention throughout the world because of the pre-eminence of United States firms in the discovery and marketing of drugs on a global basis.

The British government started buying cheap drugs from outside sources for its National Health Service, and a number of lesser countries, influenced by the action of two leading commercial nations like England and the United States, followed their example.

Encouraged by these developments, the illicit drug business began to flourish. Cultures which produce antibiotics, steroids and related products were stolen and sold abroad. Research data was filched from files and secretly micro-filmed, as were manufacturing processes and know-how, and a thriving business in drug espionage sprang up.

In the beginning, the manufacturing activities were concentrated in Italy because it is the only modern industrial nation which does not provide patent protection for pharmaceutical products. Later, supplies began to emerge from behind the iron curtain, channeled through respectable commercial fronts in centers like Amsterdam and Zurich to mask the country of origin.

While these activities abroad have had serious consequences for the foreign business of many American firms, their effect on the domestic drug business has thus far been minor, except for some smuggling of patented products and importing of bulk materials.

Clandestine Manufacturing

What is of great significance to our domestic industry is the mushrooming growth of clandestine manufacturing operations in the United States. Up until recently these illicit operations concentrated on the production of "goofballs" and counterfeiting, but the scope of their operations is now being expanded to include the whole range of ethical pharmaceutical products.

This illicit branch of the industry is still relatively small. The important thing is that the seeds have been sown and the method of operation established. Its rapid growth only awaits the opening up of the vast new markets which the campaign for generic prescribing will provide.

So, here we stand today—with the patent and trademark system for pharmaceutical products under attack from many quarters.

Largely forgotten is the fact that these vital factors provide the funds for the private research which has been so enormously productive and enabled us to lead the world in ethical drugs. Mostly ignored is the fact that the reliance on trademarks, brand names and voluntary compliance with the law and regulations has made it possible to police this vast industry successfully with a mere handful of technically-oriented F.D.A. inspectors.

The Future

With these pillars gone or seriously weakened, I am concerned, as a drug manufacturer, with the future of research.

I am alarmed, as a citizen, about the cost of the vast policing effort which the F.D.A. faces and whether or not it can succeed at any cost.

And, as a patient at some time in the future, I will always be worried about the purity, potency and

source of manufacture of every drug administered to me in a hospital or supplied on prescription.

I have talked in detail to you about these forebodings—not as an audience. You, as retail druggists, will play an important part in the drama that is unfolding.

In fact, there is *no* audience for this play. When the curtain falls, it will fall on all of us.

HIGHLIGHTS OF THE ACTIONS OF THE MAG COUNCIL MEETING DECEMBER 10, 1966

This summary is being published so that the MAG membership may be advised in brief of the actions of the Association's Council and Executive Committee. It covers only major actions and is not intended as a detailed report. Full minutes of these meetings are available upon any member's request to the MAG Headquarters Office.

Heart Disease, Cancer and Stroke Regional Medical Program for Georgia was discussed by Program Coordinator J. W. Chambers, M.D., LaGrange. Dr. Chambers stated that the application for this program by MAG and the Medical College of Georgia and Emory University School of Medicine was being reviewed by the government and that he had met with program officials of the U. S. Public Health Service to discuss the application for this grant. Further progress on this project will be reported by Dr. Chambers within the next few weeks.

Usual and Customary Charges by physicians seeking reimbursement for services rendered to recipients of state agency programs was discussed. It was noted that MAG advised the following state agencies of Association policy in recent correspondence to: Workmen's Compensation Program; Vocational Rehabilitation Program; and Family and Children Services Medical Care Programs. It was recommended and approved that MAG also notify the State Crippled Children Services Program.

State Drug Vendor Program report was given by Linton Bishop, M.D., Atlanta, Chairman of the recently appointed MAG State Drug Vendor Program Study Committee. For medical reasons, he recommended that the drug formulary type program can significantly interfere with welfare patients being given the best medical care and that this type of control should be dropped. The Committee then listed alternative controls for consideration. MAG Council approved this report and will transmit the report to the Georgia Department of Family and Children Services.

Workmen's Compensation Maximum Limit of $2,500.00 was discussed by T. A. Peterson, M.D., Savannah, Chairman of the MAG Occupational Health Committee. The discussion centered on the Committee recommendation that the present maximum of $2,500.00 be raised to a more realistic figure. MAG Council approved this report and referred the matter to MAG Legislative Committee so that the members of the Georgia General Assembly may be apprized of this need.

Plans for MAG Foundation, Inc. was presented to Council by MAG Attorney Mr. John Moore. The proposed Foundation would engage in scientific and research projects, educational activities relating to health care, loans, grants and scholarships in the field of health education, etc., similar to the AMA Education and Research Foundation. A final recommendation from Executive Committee of Council on this matter will be given at the MAG Council meeting in March 1967.

MAG Automobile Traffic Safety Committee presented an interim report of their activities which included data on the national highway safety law; driver training programs; improved accident investigation procedures; emergency service plans and care of injuries; and petitions to the Georgia General Assembly in the interest of traffic safety laws. MAG Council also approved the MAG joining the new Georgia Safety Council.

MAG 1967 Budget, as proposed by the Association Finance Committee, was approved by Council. This budget is based on projections of the Association activities for the calendar year of 1967. Estimated MAG income for 1967 was projected at approximately $193,625. Association expenditures, which include fixed allotments, Association Committees, Related MAG Activities, and Association Office and Building, were estimated at approximately $206,383. This deficit budget was necessitated by the House of Delegates addition of MAG Field Service activities. It is anticipated that the 1966 excess of income over expenditures may somewhat offset this deficit.

MAG Field Service résumé of activities was presented to Council for their information. Mr. William Wallace, employed September 1, 1966, as Director of MAG Field Service, reported that he had visited with the officers of some 34 County Medical Societies in four Districts. Mr. Wallace also stated that he had attended and spoken at eight County Medical Society meetings. He noted that this reception over the state was most enthusiastic. He believed that within a year, he could visit with each Society a minimum of two times. The report was discussed and accepted.

State Board of Health Nominations from the Fifth District were approved by Council as submitted by the Fulton County Medical Society and forwarded to the Governor of Georgia for his selection—to fill the unexpired term of Fred Allman, M.D., Atlanta, who submitted his resignation to the Board. At the time of this writing, it was learned from the Governor's Office that Lamar Peacock, M.D., Atlanta had been selected for this appointment to the Board by Governor Sanders.

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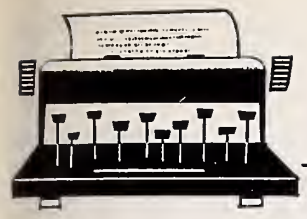

EDITORIALS

Doctors Agree—Moonshine Kills

The Medical Association of Georgia, recognizing the real health hazards of lead salts poisoning in the consumption of low-grade whiskey, has instituted a public service project to inform and warn the people of Georgia about the injurious effects of "moonshine" whiskey. In addition to the fatalities every week from this toxic substance, statistics bear out the unnecessary patient treatment and hospital admissions caused by moonshine whiskey in Georgia.

The Association's Public Service Committee has enlisted other organizations and agencies to communicate with the public in an endeavor to save lives and prevent unnecessary illnesses. MAG, seeking the advice and cooperation of the Alcohol and Tobacco Tax Division, U. S. Treasury Department, has stimulated billboard announcements, metropolitan bus cards, bumper stickers, etc., all stating that "doctors agree—moonshine kills." This project is similar to the Association's activity in many other fields of preventive medicine.

We are in hopes that physicians over the state will assist in this program of public education in an effort to eradicate illness and injury directly caused by moonshine whiskey. Because this becomes a medical problem, the profession is involved and to this end, MAG believes this project worthy of your participation.

Typhoid Vaccination: Past, Present and Future

Looking back on a Georgia boyhood, the delicious anticipation of summer with all its joys of freedom was spoiled by one inevitable event—the annual typhoid shot. Try as one might, there seemed no way to escape the judgment that the typhoid shot was a necessity of life and that to go to summer camp without one was unthinkable. The prick of the needle and the ache of the arm were part of the price to be paid. No one questioned the use of the vaccine despite the fact that evidence for its effectiveness was lacking.

Trials Poorly Controlled

Typhoid vaccine was first introduced around the turn of the century and was widely accepted, though trials of the vaccine in humans were poorly controlled and would be unacceptable for a new vaccine today. At the same time, great improvements were taking place in methods of providing pure water, milk and food, and in sewage disposal. The incidence of typhoid fever declined sharply, and few doubted that the vaccine was a significant factor. In 1941, the British developed an "improved" alcohol treated vaccine which replaced the older phenolized vaccine in some areas but again without adequate trials in man.[1] The denouement finally came when several outbreaks of typhoid fever occurred among military personnel and their dependents who had been previously well immunized.[2, 3] Widespread disillusionment and confusion about typhoid vaccine as an immunizing agent followed. Finally, in 1955, the first well-controlled studies of typhoid vaccine in man were done in Yugoslavia and were followed by others in Russia and British Guiana.[4]

The gist of these and other studies is as follows:

1. Typhoid vaccination is effective in providing protection to exposed populations against typhoid fever.

2. The degree of protection varies from a low of about 40%, with the alcoholized vaccine, to around 75% for the classic phenolized type, and to better than 90% for an acetone-dried product recently developed by the U. S. Army.

3. The degree of protection also depends upon the size of the challenge dose. It seems likely that any vaccine-induced immunity may be overcome if enough typhoid bacilli are ingested.

A Common Infection

The conclusions apply to areas where typhoid fever is a relatively common infection, as it is in many under-developed countries today and perhaps Georgia 30 years ago. But what about Georgia today? The incidence of typhoid fever continues to decline. In 1935, there were 1,013 cases of typhoid in Georgia with 261 deaths, while in 1965 there were only 12 cases and one death. The few cases which continue to occur in this country are usually associated with a family carrier and rarely with community-wide dispersal of the infection in water, milk or food.

Somewhat ironically then, when typhoid vaccine was needed and used 30 or more years ago, there was little scientific evidence that it was effective, while today, when it is little needed in this country, we have good evidence for its value and have better vaccines than ever before. There are, however, a few remaining indications for typhoid vaccination as recommended by the Public Health Service Advisory Committee on Immunization Practices.[5]

1. "Intimate exposure to a known typhoid carrier as would occur with continued household contact.

2. Community or institutional outbreaks of typhoid fever.

3. Foreign travel to areas where typhoid fever is endemic."

The use of typhoid vaccine is no longer recommended for summer camps or as a condition for employment or entrance into schools or other civilian groups. Its greatest continued use will doubtless be in the military services. The available vaccine at present is the phenolized type, though the acetone-dried form will probably be preferred when it becomes available.

At a time when medical science is producing new vaccines against diseases previously unapproachable, it is encouraging to be able to remove one vaccine from the formidable array of routine immunizations which face our children. They will scarcely mourn the passing of the typhoid shot when summer comes around each year.

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Tom F. Sellers, Jr., M.D.
Emory University School of Medicine
Atlanta, Georgia

Leadership Conference to Be Held February 4 and 5

On Saturday and Sunday, February 4 and 5, the Medical Association of Georgia will hold the Ninth Annual Medical Association of Georgia Leadership Conference. This is to be held on the weekend immediately preceding the Atlanta Graduate Medical Assembly at the Riviera Motel. In the immediate future, an official invitation and copy of the program will be mailed to the officers of the district and county medical societies. It shall be emphasized, however, that all members of the Medical Association of Georgia are invited to attend this important conference.

An outstanding program has been put together for the 1967 Conference. Highlighted on the program will be Dr. Charles Hudson, President of the American Medical Association, and Dr. Raphael Levine who is a Human Factors Scientist of the Lockheed-Georgia Research Laboratory. At the Saturday evening reception, also to be held at the Riviera, participants in the Conference will again be entertained by the Wits End Players.

It is at this Conference that the activities of the Medical Association of Georgia during the previous year are reviewed, and plans for the coming year are discussed. If you wish to attend this Conference, please contact the Medical Association of Georgia Headquarters Office, 938 Peachtree Street, N.E., Atlanta, Georgia.

winter 1966

DORSEY Season

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this issue: the nose as a shock organ

the nose as a shock organ

by Charles J. Shagoury, M.D., Chelmsford, Massachusetts

"Is it a cold, hay fever, or has he been reprimanded by his boss?" Occasionally, you will ask yourself this question when confronted by a patient with abrupt onset of rhinorrhea, nasal obstruction, and sneezing. Usually the history will elucidate the problem, but examination of the nose will often provide valuable clues to the correct diagnosis.

The nose is a shock organ in a double sense. First, it is in the nose that the confrontation takes place with the surrounding atmosphere. For twenty-four hours a day, the nose must meet the varying challenges of the inspired air, containing perhaps noxious chemicals, dust, dirt, bacteria, viruses, fungi, and industrial pollutants of all kinds, and render it clean, virtually sterile, and fit for the sensitive alveoli of the lungs. Whatever the temperature or humidity of the atmosphere, the nose must transmit it to the lungs at approximately 98°F, and with a humidity of approximately 40%.[1]

Second, in particularly susceptible patients, the nose acts as a shock organ in a manner totally unrelated to its normal function. Persons with hay fever respond to ordinarily harmless materials by extreme nasal congestion, with marked rhinorrhea and violent spasms of sneezing. In some patients, exposure to threatening or disagreeable agents, or situations involving mental conflict may result in a reaction which is exclusively nasal, with swelling of the turbinates, and marked hypersecretion.[2]

Nasal symptoms usually result when the nose seeks to perform its function of getting rid of noxious and dangerous elements in the atmosphere, and prevent their admission to the trachea and lungs. Small particles are removed by the mucous coating which blankets the nasal passages. This mucous blanket contains a bacteriostatic agent, lysozyme, which destroys most air-borne bacteria.[3] The mucinous content renders the surface sticky, causing dusts and small particles to adhere. It has been postulated that this process is rendered more effective through adsorption because of a surface electrical charge on the nasal mucosa.[4] The cilia then sweep the particulate matter to the pharynx. The nose can prevent entrance into the lungs of particles as small as three microns in diameter, but smaller particles elude the nasal barrier. Most bacteria causing respiratory infections are one to three microns in diameter, but since they usually are inhaled in clumps, they are efficiently removed as a rule. Viruses, which are of the order of 1/1000 of this size, are less efficiently dealt with, unless they occur in very large aggregates.[5]

The nose will react in a more or less similar manner, whatever the nature of the offending agent, whether it be an irritant chemical, virus, pollen, or distasteful emotional situation. In acute coryza, the most characteristic sign is a profuse watery discharge. The volume of secretion may rise from practically nothing to nearly 60cc in twenty-four hours.[6] The mucous membrane is reddened and engorged, while the turbinates are markedly swollen. After the first day or two, the secretion becomes thicker, yellowish, and more difficult to expel. The surface cells are largely destroyed, contributing to the copious discharge, which now also contains numerous inflammatory cells which have migrated to the area. Gradually, over a period of a few days, or a week, the flood abates, the swelling and redness subside, and the nasal epithelium resumes a healthy appearance.

Repeated attacks of rhinitis, particularly if there is an underlying element of obstruction, may result in chronic rhinitis. The mucous membrane is constantly swollen and reddened. Sticky, mucopurulent secretions are a continuous feature, and the glandular elements are hypertrophied. Commonly, the mucosal surface takes on an irregular, rounded "mulberry" appearance, and nasal passages are occluded by the swollen turbinates and redundant mucosa.

While all of us are susceptible to colds, the victim of hay fever, or allergic rhinitis, displays a marked nasal reaction to materials in the air which leave his associates unaffected. In such a patient, the nasal mucosa has become an allergic "shock" organ. Contact with the nasal allergen causes local release of histamine, with vasodilatation, increased vascular permeability, and severe nasal congestion, similar to the "wheal" and "flare" reactions in the skin, when the epidermis is the allergic shock organ. While we eagerly await the coming of spring, the hay fever sufferer dreads the blooming season, whose invisible pollens are poisons to his sensitive nose. His neighbor's cat or dog may provoke paroxysms of uncontrollable sneezing. In some cases a specific allergen is not identified, but the triad of rhinorrhea, nasal obstruction, and sneezing is present.[7] The nose in these cases shows a pale, boggy, edematous mucosa, with a thin mucoid secretion. The mucous membrane shows extreme retractility to 1% cocaine or ephedrine. If the patient has medicated himself prior to examination, the nasal passages may appear abnormally patent, or show exaggerated congestion due to rebound reaction. The secretion may show a large number of eosinophils particularly after an attack of sneezing or rhinorrhea. Touching the mucosal surface, especially of the inferior turbinate, leaves an indentation, showing that the swelling is due to stasis and edema, rather than actual hyperplasia of the mucous membrane as in chronic hypertrophic rhinitis. Though the pale swollen mucosa is the hallmark of allergic rhinitis, as usually seen by the physician, exposure of allergic subjects to their known allergens results in a brief hyperemic phase, followed by pallor and edema.[8]

In the later stages of allergic rhinitis, the chronic edema of the mucous membrane results in the formation of polyps, clusters of grape-like masses hanging from the roof of the nose, with a pale glistening surface, contributing significantly to the sense of nasal obstruction and oppression.

A large group of patients show symptoms of nasal congestion when confronted by adverse life situations.[9] In these unfortunate persons, anxiety, frustration, and resentment are often accompanied by a runny nose and nasal obstruction. Lacrimation adds to the nasal stuffiness. This autonomic response, mediated by the parasympathetic nervous system, may be part of a general parasympathetic reaction, or may possibly represent in part, a symbolic effort to wash out and crowd out the offending situation.

Nasal congestion may also occur in some patients at times of sexual stimulation, and in women during menstruation and pregnancy, even to the point of epistaxis.[10] The relationship is obscure; castration results in atrophy of the nasal glands, and their action is inhibited by the hormones of the hypophysis and the thyroid.[11] The nose may be the shock organ in drug therapy. The nose may also bear the brunt of industrial stress, in those who work in a hot dry atmosphere, or those exposed to acid fumes, or irritating dusts. As the air in our cities is increasingly polluted by exhaust fumes, and industrial irritants, whole urban populations may suffer from chronic nasal and respiratory symptoms.

Of course, nasal reactions are not just infectious, or allergic, or emotional. Particularly in the chronic sufferers, there is an interdependence of all three. Death of a relative, or other psychic shock can pre-

(concluded on following page)

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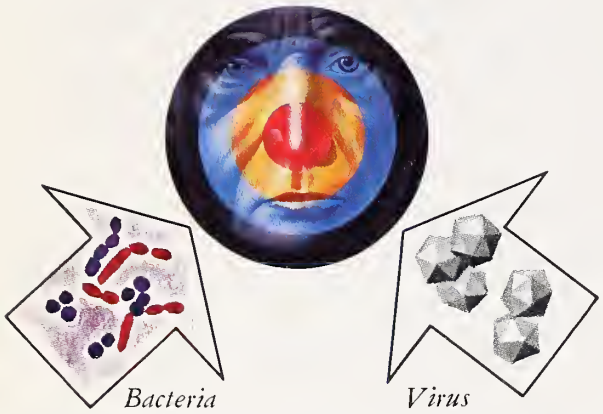
cipitate an attack of rhinorrhea in hay fever sufferers.[12] Others develop attacks of vasomotor rhinitis following change in temperature, chilling, or exposure to the sun, or simply warm bedclothes.



The complex interplay of allergy and infection is largely unclear. Allergy to the viruses and bacteria which cause infection has been postulated, but is difficult to demonstrate. The swollen obstructed allergic nose is more susceptible to infection. At the same time, infection often precedes or precipitates an allergic attack. Exposure of a susceptible patient to an allergen can activate latent virus organisms leading to infection.[13] This "jolt" reaction represents a summation of an allergen and a virus leading to symptoms in the nose as a shock organ, which neither could have produced alone. In childhood, repeated attacks of bronchitis and colds may be inflammatory reactions to an allergen, or precipitated by exposure to an allergen. These children may later develop typical allergic rhinitis. On the other hand, children with typical allergic histories, eczema, asthma, and allergic familial backgrounds, may later develop typical infectious rhinopathies. Skin tests in such patients are usually positive.

Nasal reactions are part of the systemic response of the patient to an unwelcome stimulus. In cases of respiratory infection and exposure to atmospheric irritants, the reactions are useful, and to some extent desirable. They are usually self-limited, disappearing within a few days, or upon removal of the provoking agent. Here the distressing symptoms can be ameliorated with appropriate decongestant agents, or, in the case of severe or complicated respiratory infections, antibiotics may be given, with reasonable confidence of a cure. On the other hand, when nasal reactions are the peculiar response of an individual to an allergen, or to an undesirable situation, they serve no useful purpose. The nose here is a shock organ in a stressful situation, but can furnish no response of value. It merely causes the patient symptoms which add to his problems. In these cases, symptomatic treatment is of great benefit, but often the underlying faulty pattern of response cannot be altered. Such a patient may literally be considered to be paying his way in life "through the nose."

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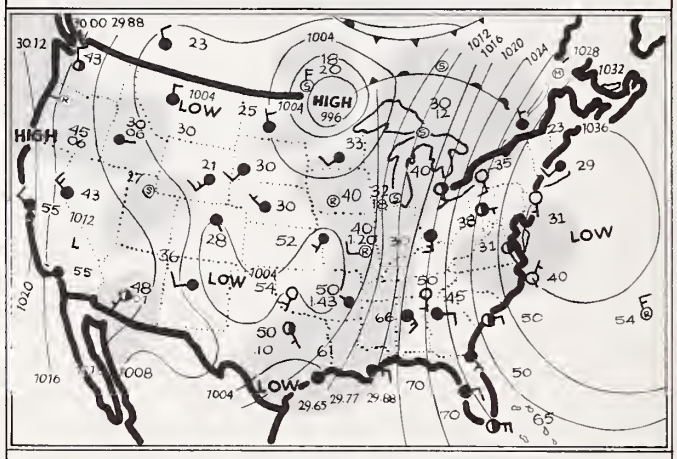
Weather Forecast Throughout the Nation



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PRESIDENT'S LETTER

THE CONVENTION AT LAS VEGAS

We are writing after having returned from the clinical meeting of the American Medical Association at Las Vegas.

Present in Full

The Georgia delegation was present in full except one. As is usual, all resolutions and recommendations were fully reviewed prior to the meeting of the House of Delegates, and decisions made as to what stand our group would take in support of, or opposition to, these. Much work is done and our membership should realize that many hours are spent by the delegates and others in carrying out assigned and voluntary duties at these conventions.

It was also noted that there was time for certain extracurricular activities among many of our group, such as visiting and making the guided tour of Hoover Dam; visiting the bomb plant and towns in a different section of the state; and visiting the beautiful center and convention hall and museum.

From the Stresses and Strains

I also heard indirectly of other afterworking hour activities which were of a somewhat lighter vein and afforded relaxation from the stresses and strains of pursuing our more serious purposes. These above being mainly hearsay, as I was slightly indisposed at times and have little firsthand knowledge as to exactly what may have transpired during off hours. I might add, however, that there now appears to be certain unexplained shortages in my bank balance, for which I have no accompanying expense voucher.

The organization of state presidents had a fruitful and valuable session. Much time was given to discussion pro and con of Title XIX. Twenty-seven state programs are now approved by the Department of Health, Education and Welfare. Those states unable to afford activation of the program will lose federal funds and will have to add additional state funds. Much was said about the concept of usual and customary fees and it was extremely interesting to have varying ideas and interpretations from different parts of the country. It was agreed that this would require more funds than a set fee schedule for the various services.

In some states it is illegal for the state agency to contract with the third party for payment. Health, Education and Welfare generally may accept usual and customary fees but will be slow on adoption nationally.

Nineteen states must pay directly to doctors. Eighteen by direct or assignment. Either is legal and acceptable.

Present and Future Status

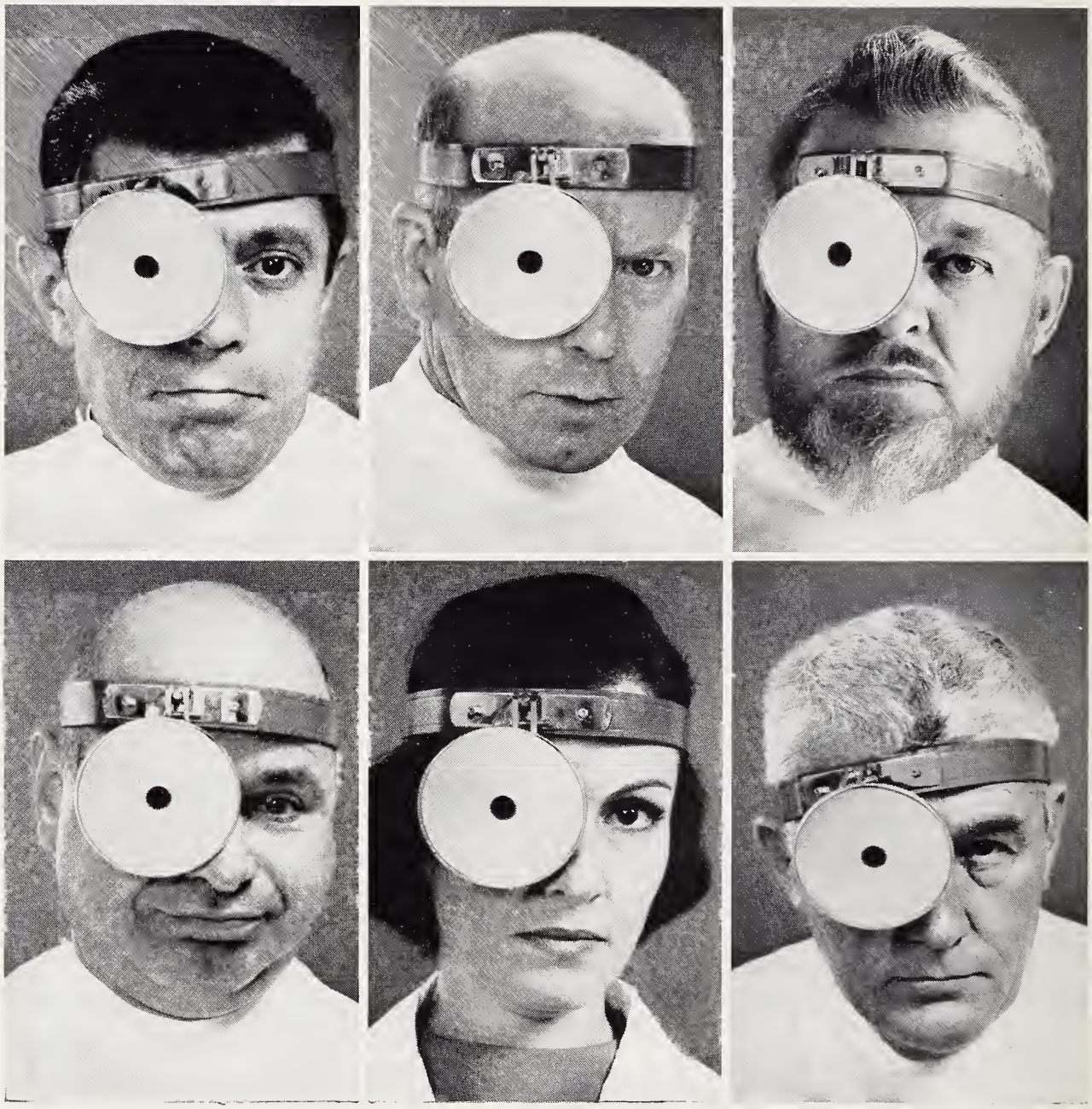
Many states were polled as to present and future status. Some are not activated—others are using the Board of Health as agent; many are using the Welfare Department; and several the Blue Shield. Also, money to be advanced by states and Health, Education and Welfare vary widely. (California by Health and Welfare; Family of four with $3,400.00 income now eligible; will cost state 585 million dollars first year.) It was evident that all states wish to establish a usual and customary fee instead of a set fee schedule under this program.

In most states the governor or legislature will make appointment of the administering agency. Also many state societies stressed and insisted that free choice of physician concept shall be maintained.

New York State Medical Society is in violent disagreement with the already enacted "Medicaid Law." There are many open and loose ends and unresolved problems (family with $6,000.00 net after income tax, and with up to six children, now eligible). Programs under Welfare until November 1, 1966, are now under the Health Department.

Walter Brown

Walter E. Brown, M.D.
President, Medical Association of Georgia



"All Otolaryngologists are Alike"

Just look at them and you can see how much they have in common. Besides, they all go through pretty much the same training, and pass the same kinds of tests, and measure up to the same sort of standards. Therefore, all otolaryngologists are alike. Right?

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These Bayer standards result in significant product benefits, including gentleness to the stomach and product stability, that enable Bayer Aspirin tablets to *stay* strong and gentle until they are taken.

So next time you hear someone say that *all* aspirin tablets are alike, you can say, with confidence, that "it just isn't so."

You might also say that all otolaryngologists aren't alike, either.

NEEDS IN BREAST CANCER

Asa G. Yancey, M.D., *Atlanta*

Most women, by far, know that when a mass is felt within the breast, this fact should be promptly reported to a physician and the mass or breast removed. About 17%-35% of this group of patients will present themselves for care within 60 days. A smaller, but significant group of women, are aware that the presence of a breast mass is not normal but will delay significantly a visit to their physician because of fear of the surgical advice they will receive. Also, a goodly percentage of patients will persist in the human hope that the mass is of small moment, will go away, or they are too busy to take time out for the indicated medical care. There are few women who are totally unaware of the fact that a mass in the breast constitutes a source of danger.

Greatest Number of Deaths

Breast cancer causes the greatest number of deaths, due to cancer, in women. Approximately 27,000 persons died of cancer of the breast in the U. S. in 1965. Almost 250 of these patients were men, the remaining 26,750 were women. Some 63,000 new cases of breast cancer are expected in the year 1967. The five-year survival rate for "localized" cancer of the breast is 82%; for patients with "regional spread" about 47% live for five years. The absolute five-year cure rate for all stages of cancer is about 56.7%, which is the cure rate for women, according to Haagensen. The over-all five-year cure rate for breast cancer in men is only 8% (Huggins). In favorable cases, the five-year cure rate rises to 35%, in the male.

Worthwhile Procedure

Needle-biopsy of the breast is a very worthwhile procedure which has many advantages. It can be done as an office or outpatient procedure. If the presenting mass is a cyst, the fluid is withdrawn, and slides made for cytological study. If the mass completely disappears after aspiration, the patient need not be admitted to the hospital for further therapy. Should the needle biopsy report reveal carcinoma, with certainty, then time is preserved at operation for removal of the primary mass and frozen section are not necessary. In the event that the needle-biopsy is benign or equivocal, the breast mass must be promptly excised for pathological study.

Constant Mortality Rate

The mortality rate for breast cancer has remained unfortunately and remarkably constant for over 36 years. This is the situation, even though we have active public education programs which have disseminated knowledge and some fear of the disease. One speculates on whether a significantly higher percentage of patients would be treated while yet in the group without regional metastases, if the following concepts were rendered more widespread:

(a) Physicians were to secure mammograms, promptly, in all cases wherein there was even a suspicion of a mass, or for breast symptoms. Such mammography should be done by a roentgenologist interested especially in radiology of the breast. Cancer of the breast is being increasingly found by x-ray before a mass becomes palpable.

(b) Continued efforts to take fear out of the teaching of knowledge of cancer, because whereas fear brings a large number of patients without a breast mass to the physician, it keeps a fair number with a true breast mass away from a doctor.

(c) Virtually all people know that cancer is a destructive disease, but so many do not really appreciate the stealthy, persistent, and chronically progressive nature of breast cancer. Accordingly, lacking this appreciation, many a woman simply "cannot find time" (with pressing family duties) to have a known breast mass adequately treated. Radical mastectomy when no regional metastatic lymphnodes are present and radical mastectomy with cobalt x-irradiation, postoperatively, with the presence of metastatic deposits in regional lymphnodes, only, are generally considered the soundest forms of treatment. Adjunctive forms of therapy such as oophorectomy, adrenalectomy, hypophysectomy, and chemotherapy are of value but do not eradicate the basic disease process.

In conclusion, if we can conquer fear in those few—with a definite breast mass—who shy away from medical diagnosis (not so much the treatment); inform those who know not of the danger of breast nodules; impress those who will not monthly palpate the mammary appendages; and x-ray the suspicious substance of the female breast, we very likely will materially decrease the death rate, due to cancer of the breast, for the future.

Hughes Spalding Pavilion

Approved by the Professional Education Committee, Georgia Division, ACS.

HIGHLIGHTS OF AMA CLINICAL CONVENTION

The following summary of the activities of the AMA House of Delegates is given for the purpose of touching upon the more important items undertaken at the 1966 Clinical Convention. It is not intended as a detailed report of all the actions taken.

THE AMA HOUSE OF DELEGATES received and considered a large number of reports and resolutions at the 1966 Las Vegas meeting including: education for family practice, Public Law 89-97 (Medicare), prescribing of drugs, choice of laboratories, payment for professional services and others.

Education for Family Practice

Calling it "a document of major importance on a subject of vital significance to the health care of the American public," the House of Delegates endorsed the recommendations of the Ad Hoc Committee on Education for Family Practice and authorized the Council on Medical Education to develop and initiate plans for their implementation. The report adopted by the House of Delegates contained the following recommendations:

"A. Major efforts should be instituted promptly to encourage the development of new programs for the education of large numbers of family physicians for the future. The educational programs should relate to all levels of medical education, including pre-medical preparation, medical school education, internship and residency training, and continuing medical education.

"B. Medical schools and teaching hospitals should be urged to explore the possibility of developing models of family practice, in cooperation with the practicing profession.

"C. New sources of financial assistance should be developed for the support of family practice teaching programs.

"D. Recognition and status equivalent to other medical specialties should be given to family practice. An appropriate system of specialty certification should be provided for those who have completed approved educational programs and have demonstrated their competence as family physicians.

"E. Careful attention should be given to other factors which should make the environment for family practice more favorable and serve as incentives to medical students and young physicians to enter this field.

"F. Careful study should be made of the effect of pre-medical programs and the admission procedures, curricula and student evaluation policies of medical schools upon the production of family physicians."

Public Law 89-97 (Medicare)

The House adopted a resolution urging that the AMA advise the Department of Health, Education, and Welfare that the present requirements for certification and recertification have proven objectionable, unnecessary, and do not contribute to the quality of medical care.

It also recommended the repeal of those portions of PL 89-97 in which the requirement for physician certification of medical necessity appears.

The resolution concluded by suggesting that the fiscal intermediaries and the American Hospital Association be advised that AMA will be available to assist in the development of appropriate amendments to this legislation.

The House also adopted a resolution declaring that the AMA strongly support amendment of the Social Security Act, including Title XIX, to permit payments without assignments for medical care of the patient.

Prescribing of Drugs

The House adopted a report by the Board of Trustees reaffirming the position of the AMA regarding the prescribing of drugs. The report states:

"The present policy of the American Medical Association is that physicians should be free to prescribe drugs generically or by brand name for *all* of their patients, whether they are paying, Medicare, or indigent patients—the primary consideration being the best interests of the patient. Medical considerations must be paramount in the selection of drugs. In addition, the physician also has an obligation to be mindful of the economic consequences of the treatment he prescribes."

Choice of a Laboratory

The House adopted a report of the Judicial Council which answered questions which have been raised about laboratory services. The report stated:

"Medical considerations, not cost, must be paramount when the physician chooses a laboratory. The physician who disregards quality as the primary criterion or who chooses a laboratory because it provides him with low cost laboratory services on which he charges the patient a profit, is derelict in not acting in the best interests of his patient. However, if reliable quality laboratory services are available at lower cost, the *patient* should have the benefit of the savings.".

Payments for Professional Services

To clarify AMA policies as they now exist, the House adopted the following eight-point statement regarding payment for professional medical services:

"1. It is proper for the physician to establish the fee which he charges to any patient for the professional service rendered, with recognition of the fact that a duly constituted committee of his peers may appropriately review and pass upon the equity and justice of his charge.

"2. It is proper for third party agencies to make payment of professional medical fees in behalf of patients, with recognition of the fact that the service of the physician has been to the patient and the liability for payment rests primarily with the patient or his family.

"3. It is proper for a physician to work cooperatively with other physicians in a team approach to the provision of medical service, with recognition of the fact that each cooperating physician is entitled to compensation according to the value of his services, and that the charges attributable to each physician's service shall be made clearly known to the patient.

"4. It is proper for a physician who provides personal supervision and direction for a physician-in-training to charge for the professional medical service rendered.

"5. A physician should not enter into a contract or agreement with a hospital whereby the hospital acts as the agent for a physician unless it is with the consent of the physician and of the medical staff. The physician and the medical staff, as principals, should not approve any contract whose terms or conditions are inconsistent with the Principles of Medical Ethics and established policy of the American Medical Association.

"6. Physicians, collectively in hospitals, may properly establish special medical staff funds, wholly under their own control, which they may support as they see fit and disburse as they may agree.

"7. Fees for professional medical services are properly paid only to the responsible physicians and may not be appropriated by any other person or agency.

"8. The physician is the sole arbiter as to the ways in which he may dispose of his professional income, without duress, consistent with the laws of the land and the Principles of Medical Ethics of this Association."

Other Actions

In considering 63 resolutions, 22 Board reports and a wide variety of additional reports and materials from councils and committees, the House of Delegates also:

Instructed AMA members of the Joint Commission on Accreditation of Hospitals to express grave concern regarding the accreditation of hospitals in which *laboratories* are directed by non-physicians or physicians not adequately qualified in laboratory medicine.

Passed two resolutions opposing the *"dual fee"* practice of determining the rate of payment for a physician's services solely on the basis of his type of practice;

Approved a Board report recommending that *Social Security* laws be amended so that physicians entering the program for the first time may obtain earlier eligibility and improved benefits;

Endorsed the principle of *free choice* of physician and medical facility under Title XIX of Public Law 89-97;

Recommended that *driver education* should be an integral part of the secondary school curriculum and be offered to all students.

RELATIVES NO LONGER MUST SEEK LEGAL ASSISTANCE TO OBTAIN MEDICARE PAYMENT

It will no longer be necessary for widows, widowers, or other relatives to arrange for the appointment of a legal representative of a Medicare beneficiary's estate simply to collect a Medicare payment. In some cases the legal costs would be equal to or even exceed the amount of the reimbursement under Medicare. Where there is no legal representative of the beneficiary's estate, and where none is expected to be appointed, Medicare will make payment to a surviving widow, widower, or other relatives.

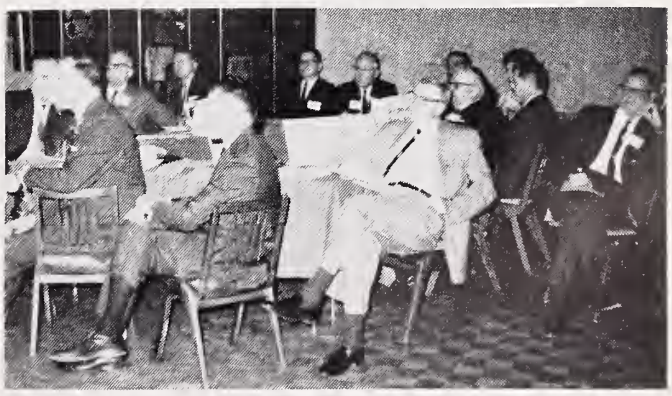
Payment Will Be Made

Where the bill has been paid, the Title XVIII payment will be made (1) to the individual who paid part or all of the bill as creditor of the estate if he agrees to distribute the proceeds among any others who paid part of the bill, or to those who might be entitled under State law, or, (2) to a surviving relative on behalf of the estate, if the available closest relatives consent to the payment. Where the bill has not been paid, Title XVIII will reimburse the physician or supplier directly if he agrees not to charge in excess of the reasonable charges.

ETHICS CONFERENCE STAGED

Fifty-eight physicians from around the state registered for the inaugural Conference on Medical Ethics which was held in Atlanta on December 10-11. Two out-of-state speakers presented papers and answered questions concerning ethical procedures.

The Conference was designed to acquaint county medical society leaders with problems and solutions concerning ethics and etiquette.



Registrants listen to questions and answers concerning medical disciplinary problems. One other round table group participated in a similar discussion.

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SYNTEX
LABORATORIES INC., PALO ALTO, CALIF.

controls infected inflammatory dermatoses that start from scratch

The "itch-scratch" cycle usually associated with inflammation often results in infected dermatoses because broken skin surfaces are particularly vulnerable to pathogenic bacteria.[1] To treat infected inflammatory dermatoses, Neo-Synalar Cream combines the most active topical corticosteroid with a highly reliable antibiotic generally reserved for topical application.

In Neo-Synalar, fluocinoline acetonide controls the inflammation and provides rapid relief from associated pruritus. At the same time, its antibacterial component—neomycin—combats superficial infection caused by many gram-positive and gram-negative bacilli[2] that often colonize and thrive on abraded skin.[1]

A specially formulated vanishing cream base that is greaseless and odor free makes Neo-Synalar cosmetically appealing, and encourages greater patient cooperation.

controls the infection

stops the scratch

Contraindications: Tuberculous, fungal, and most viral lesions of the skin (including herpes simplex, vaccinia, and varicella). Not for ophthalmic use. Contraindicated in individuals with a history of hypersensitivity to any of its components. **Precautions:** Neomycin rarely produces allergic reactions. Prolonged use of any antibiotic may result in overgrowth of nonsusceptible organisms; if this occurs, appropriate therapy should be instituted. Where severe local infection or systemic infection exists, the use of systemic antibiotics should be considered, based on susceptibility testing. While topical steroids have not been reported to have an adverse effect on pregnancy, the safety of their use on pregnant females has not absolutely been established. Therefore, they should not be used extensively on pregnant patients, in large amounts, or for prolonged periods of time. **Side Effects:** Side effects are not ordinarily encountered with topical corticosteroids. As with all drugs, however, a few patients may react unfavorably to Neo-Synalar under certain conditions. **Availability:** Neo-Synalar Cream (0.025% fluocinolone acetonide, neomycin sulfate, equivalent to 0.35% neomycin base), 5 and 15 Gm. tubes.

References: 1. Pillsbury, D. M., Shelley, W. B., and Kligman, A. M.: A manual of cutaneous medicine, Philadelphia, Saunders, 1961, p. 79. **2.** Barber, M., and Garrod, L. P.: Antibiotic and chemotherapy, Baltimore, Williams and Wilkins, 1963, p. 111.

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PLAN NOW TO ATTEND THE 1967 ATLANTA GRADUATE MEDICAL ASSEMBLY

Twenty-Fourth Annual Session sponsored by the Fulton County Medical Society
FEBRUARY 5, 6, 7 AND 8—
MARRIOTT MOTOR HOTEL

SUNDAY, February 5

Meeting of the Atlanta Dermatology Society
9:00 a.m.—Emory Clinic

A.G.M.A. Registration 2:30 to 5:00 p.m. in Marriott Exhibit Hall

Rorer Hospitality Lounge open in Plantation Salon of the Marriott

MONDAY, February 6

A DAY OF MEDICINE

Guest Lecturers:

PHILIP A. TUMULTY, M.D., Baltimore
(Sponsored by Atlanta Clinical Society)

T. S. DANOWSKI, M.D., Pittsburgh
(Sponsored by Georgia Diabetes Association, Inc.)

JAMES G. HIRSCH, M.D., New York
(Sponsored by The Arthritis Foundation)

REJANE M. HARVEY, M.D., New York
(Sponsored by Atlanta Tuberculosis Association)

JACK D. GORDON, M.D., San Francisco
(Sponsored by Committee on Alcoholism of the Fulton County Medical Society)

MATHEW ROSS, M.D., Boston

TUESDAY, February 7

A DAY OF SURGERY:
(Sponsored by Georgia Chapter, American College of Surgeons and Atlanta Graduate Medical Assembly)

Guest Lecturers:

BENJAMIN F. BYRD, JR., M.D., Nashville
DAVID C. SABISTON, JR., M.D., Durham
NATHAN A. WOMACK, M.D., Chapel Hill
ALAN P. THAL, M.D., Kansas City

A Day of Cardiology:
(Sponsored by Georgia Heart Association, Inc).

Guest Lecturers:

THOMAS L. MARCHIOLO, M.D., Denver
ELI A. FRIEDMAN, M.D., New York
BORYS SURAWICZ, M.D., Lexington
J. EDWIN WOOD, III, M.D., Charlottesville

WEDNESDAY, February 8

A Day of Obstetrics and Gynecology:

Guest Lecturers:

W. A. SCOGGIN, M.D., Augusta, in Obstetrics
PAUL A. YOUNGE, M.D., Brookline, in Gynecology

A Day of Pediatrics:

Guest Lecturers:

CLEMENT A. SMITH, M.D., Boston
HARRY SHWACHMAN, M.D., Boston

LECTURES, PANEL DISCUSSIONS, LUNCHEON ROUND TABLES EACH DAY

GEORGE S. ROACH, JR., M.D.
General Chairman
WILLIAM J. PENDERGRAST, M.D.
Faculty and Curriculum Chairman

1967 CALENDAR OF MEETINGS

State

January 20-21—"Seminar on Burns," sponsored by the University of Florida College of Medicine, Gainesville, Fla.

January 27, 1967—Vincristine Symposium, "Current concepts of biological, pharmacological and biochemical action, and comprehensive summaries of therapeutic results obtained in treating solid tumors and the leukemias," sponsored by the Pediatric Division of the Southwest Cancer Chemotherapy Study Group, St. Jude Children's Hospital, Memphis, Tenn.

March 1-3—"Acquired Valvular and Congenital Heart Diseases," sponsored by the Department of Continuing Education of the Medical College of Georgia, Augusta.

March 2-4—Seminar on "Some Aspects of Embryology and Pathophysiology of Congenital Heart Disease," sponsored by the University of Florida College of Medicine, Gainesville, Fla.

March 14-15—"Pediatric, Adolescent and Geriatric Gynecology," sponsored by the Department of Continuing Education of the Medical College of Georgia, Augusta.

March 16-17—Seminar in Obstetrics and Gynecology sponsored by the University of Florida College of Medicine, Gainesville, Fla.

March 17—Regional Meeting of Psychosomatic Medicine and Seminar on "Psychomatic Aspects of Gastrointestinal Disease," sponsored by the University of Florida College of Medicine, Gainesville, Fla.

March 21-22—"Rheumatic Diseases," sponsored by the Department of Continuing Education of the Medical College of Georgia, Augusta.

March 24-25—Seminar on Tropical Disease sponsored by the University of Florida College of Medicine, Gainesville, Fla.

April 3-7—Fortieth Annual Spring Congress in Ophthalmology and Otolaryngology sponsored by the Gill Memorial Eye, Ear, and Throat Hospital, Roanoke, Va.

April 6-7—"Auscultation of the Heart, Phonocardiography and Pulse Tracings," offered by the Institute for Cardiovascular Diseases, Good Samaritan Hospital, Phoenix, Arizona. Program to be held at the Mountain Shadows Resort, Scottsdale.

April 13-14—Obstetrics and Gynecology Seminar sponsored by the University of Florida College of Medicine, Gainesville, Fla.

April 20-21—"The Adrenals in Health and Disease," sponsored by the Department of Continuing Education of the Medical College of Georgia, Augusta.

April 30-May 1-2—113th Annual Session of the Medical Association of Georgia, Marriott Motor Hotel, Atlanta.

National

June 18-22—American Medical Association Annual Convention, Atlantic City, N.J.

REFERRING TO SPECIALISTS

John L. Moore, Jr., *Atlanta*

Facts

DOAN WAS ADMITTED unconscious to the Baptist Hospital in Mt. Vernon, Kentucky, with serious injuries including multiple fractures of his facial bones all caused by an accident. Dr. Griffith administered emergency treatment and thereafter visited Mr. Doan in the hospital daily.

On the seventh day after the accident Dr. Griffith discharged Mr. Doan from the hospital. At the time of discharge from the hospital Mr. Doan's face was still so swollen that he could not have had any work done on the fractured bones in his face.

At the trial Mr. Doan testified that Dr. Griffith did not inform him at the time of discharge from the hospital or within a reasonable time afterwards that the bones in his face needed to be set by a specialist. Mr. Doan, as a plaintiff in a malpractice suit against Dr. Griffith, claimed that that alone was sufficient evidence that Dr. Griffith was negligent in providing medical treatment. Because the facial bones had already fused, the plaintiff claimed there was no hope of repairing the disfigurement of his face and the impairment of his vision resulting.

Decision

The trial court heard Mr. Doan's case against Dr. Griffith before a jury and directed a verdict in favor of Dr. Griffith following the introduction of evidence on behalf of Mr. Doan and before any evidence was introduced on behalf of Dr. Griffith. However, this complete victory for the physician was reversed by the Court of Appeals of Kentucky, the highest appellate court in that State. That Court concluded that:

"A physician is under the duty to give his patient all necessary and continued attention as long as the case requires it, and he should not leave his patient at a critical stage without giving reasonable notice or making suitable arrangements for the attendance of another physician, unless the relationship is terminated. . . ."

The Court of Appeals, therefore, said that the jury might well have concluded that Dr. Griffith was negligent in not referring Mr. Doan to a specialist for realignment of his facial bones.

Implications of the Decision

If we assume that all practitioners would, as a standard and uniform practice, refer such patients as Mr. Doan to a specialist for the realignment of his facial bones, there appears little problem in the holding of the Court of Appeals of Kentucky.

However, if realignment of the facial bones in such a case is somewhat unusual, we have an entirely different situation. Suppose, for example, that there is a highly specialized procedure done by only one or two physicians in the country. Such a procedure might benefit the patient of a physician in another part of the country who does not know how to perform the procedure or that it can be performed. Is the local doctor to be responsible for all of the consequences of the patient's not having the special procedure if the physician does not advise his patient of its possible availability? Would this be so even if most patients in the United States did not receive such specialized surgery?

Obviously, any conscientious physician will want to keep abreast of current developments in surgery and the treatment of disease. Good information as to new procedures and treatments is disseminated constantly through the journals of the various medical societies. One lesson to draw from the discussed case is that physicians should read even more of that literature.*

Suite 1220
C & S Bank Building

* *Case discussed is Doan v. Griffith, 402 S.W. 2d 855 (Ky. 1966).*

Prepared at the request of The Medical Association of Georgia. Mr. Moore is a member of the firm of Alston, Miller & Gaines, General Counsel to The Medical Association of Georgia.

POSTGRADUATE MEDICAL SYMPOSIA TO BE OFFERED AT THE MEDICAL COLLEGE OF GEORGIA

The 1966-67 Georgia Circuit Course presents six postgraduate symposia for physicians at afternoon and evening sessions, one day each month, November through May. The programs are offered at six cities in Georgia.

Emphasis will be upon the differential diagnosis and management of conditions which commonly present to clinical physicians. The program contains didactic lectures and panel discussions, and opportunity is provided for questions and comments from enrollees. Each program begins at 2:00 p.m. and contains four and one-half hours of instruction.

The course is planned for both generalists and specialists. The course is acceptable for twenty-seven (27) hours of credit by the American Academy of General Practice.

The Seminar will provide opportunity to review basic concepts and proper control measures to assure reliability.

The Workshop is designed for the participants to gain firsthand experience in the evaluation of techniques, to discuss inherent problems of test systems, and relate these to the theoretical aspects discussed in the Seminar.

FOR TECHNICIANS AND CLINICAL PATHOLOGISTS

Medical Technology Seminar and Workshop
February 10-11, 1967

Acquired Valvular and Congenital Heart Diseases
March 1-3, 1967

The etiologies, diagnosis, and management (medical and surgical) of these conditions will be discussed. Since individualized instruction will be given in the bedside diagnosis of selected cardiac conditions, the enrollment for this course will be limited.

Pediatric, Adolescent and Geriatric Gynecology
March 14-15, 1967

During the first day infections and trauma in children as well as endocrinopathies will be discussed. The second day of the course will be related to the problems of the climacteric including the use and abuse of hormone therapy.

Rheumatic Diseases
March 21-22, 1967

This course will cover the broad spectrum of rheumatic diseases involving joints and multiple other organ systems and will include the connective tissue (collagen) diseases.

The Adrenals in Health and Disease
April 20-21, 1967

The clinical physiology and pathophysiology of these glands and related therapeutic considerations will be presented in this seminar.

Registration

In order to know the attendance that may be expected, advance registration is requested.

Fee

The advancement payment fee for the entire course of six programs is $40.00. The fee for a single program is $10.00. Please make checks payable to the Medical College of Georgia.

NEW MEMBERS OF THE MEDICAL ASSOCIATION OF GEORGIA

Byrnes, William F. Active—Fulton	2748-A Felton Drive East Point, Georgia 30044
Eargle, C. L., Jr. Active—Cobb	1205 Roswell Street Marietta, Georgia 30060
Gardner, Joseph M. Active—Cobb	2404 Austell-Marietta Road Austell, Georgia 30001
Grantham, C. G. Active—Bibb	781 Spring Street Macon, Georgia 31201
Hobson, John L. Active—Glynn	2400 Parkwood Drive Brunswick, Georgia 31520
Hood, E. D. Active—Georgia Medical	241 Abercorn Street Savannah, Georgia 31401
Jones, Arthur B., Jr. Active—Fulton	770 Cypress Street, N.E. Atlanta, Georgia 30308
Martin, Richard D. Associate—Fulton	69 Butler Street, S.E. Atlanta, Georgia 30303
Menendez, Jack F. Active—Bibb	700 Spring Street Macon, Georgia 31201
Schuh, Fredric D. Service—Fulton	U. S. Army Headquarters Ft. McPherson, Georgia 30330
Skinner, John J., Jr. Active—Laurens	606 Academy Avenue Dublin, Georgia 31201
Smith, Patton P. Active—Bibb	235 Medical Court Forsyth, Georgia 31029
Stein, Ignatius J. Active—Fulton	401 Peachtree Street, N.E. Atlanta, Georgia 30308
Wilkinson, Tolbert S. DE 2—Fulton	80 Butler Street, S.E. Atlanta, Georgia 30303
Zevallos, Carlos A. Active—Spalding	Spalding County Hospital Griffin, Georgia 30223

GENERAL PRACTICE AND PSYCHIATRY

James F. Brooks, M.D.,* *Atlanta*

THE PRACTICE of psychiatry and general practice re so closely allied in a broad sense that one finds t very difficult to discuss one without including the ther.

Dr. Dunbar in her book states that 65% of all llnesses are directly caused by emotional illnesses or ompounded medical illnesses.

Figures Higher

As a former general practitioner, I would place hese figures somewhat higher, probably 65% to 0%. In my opinion, I feel that one of the most nportant things that a general practitioner can do n his practice is to recognize his ability to treat the motionally ill, for it is a known fact that more emoonally ill people are treated by general practitioners han are actually treated by psychiatrists. This front ne psychiatry should be done. We know that emoonally ill patients who can be treated in their faniliar environment of home and community tend to et well faster and function much better than those hat are institutionalized and go to centers of psyhiatrically ill people. This, of course, does not inlude the very ill and psychotic patient.

Primary Difficulty

One of the primary difficulties that the general ractitioner has as compared to the psychiatrist is hat the general practitioner sees large volumes of eople and expects rapid and dramatic results as do is patients. This is not true in psychiatry, for the rogress is quite slow at times. In fact, one can say hat psychiatric treatment is three steps forward and two steps backward much of the time. This should not discourage the general practitioner, for one does not give up on diabetics or angina pectoris and other long-term diseases.

Again, I emphasize that when a patient with a long-term illness presents himself to the general practitioner, he should be able to realize his limitations and refer these people to the appropriately trained psychiatrist. The general practitioner and psychiatrist both treat emotionally ill patients; the general practitioner treats the less ill, as compared with the psychiatrist who treats the more severely ill. I also might add that a general practitioner can save himself quite a great deal of anguish by a call to a psychiatrist about a patient, which is done quite routinely by the general practitioner to doctors in other specialties.

Postgraduate Training

In closing I would like to mention postgraduate training for the non-psychiatric medical doctors. This is very important, for it is in this way that the general practitioner becomes more oriented and better able to recognize mental and emotional illnesses. Also, the general practitioner becomes more comfortable in dealing with emotionally ill people. There is a great problem in setting up a program for postgraduate training, but steps along this line are being made.

Prepared at the request of the Sub-committee on Mental Health of The Medical Association of Georgia.

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* *Second-year Resident in Psychiatry, Emory University.*

MILLEDGEVILLE'S PSYCHIATRIC RESIDENCY TRAINING PROGRAM GIVEN CONTINUED APPROVAL BY REVIEW COMMITTEE

Milledgeville State Hospital's psychiatric residency raining program has been given continued approval by he Residency Review Committee for Psychiatry and Neurology representing the American Board of Psyhiatry and Neurology and the Council on Medical Education of the American Medical Association, it has een announced by Dr. James B. Craig, hospital superntendent.

The program this year is training 29 psychiatrists of whom nine are in the first year, 11 in the second year and nine in the third year. Ten new residents will be added each year.

The Hospital also has psychiatric residency training programs with Emory University and the Medical College of Georgia. At the present time there is one physician in each of these programs making a total of 31 young physicians who within the next three years will enter some phase of psychiatric medicine in Georgia.

ABSTRACTS BY GEORGIA AUTHORS

Dees, Hoyt, M.D., Dept. of OB-GYN, Macon City Hospital, Macon, Ga., "Cervical Pregnancy Associated with Uterine Leiomyomas," Southern Medical Journal 59:900 & 905(August)1966.

This is a case of cervical pregnancy associated with or caused by uterine leiomyomas. The patient presented here aborted a cervical pregnancy at six weeks gestation and was completed by curettage. The diagnosis of cervical pregnancy was confirmed by necrotic decidua and products of conception from the endocervix, and leiomyoma and necrotic decidua from the uterine cavity with absence of chorionic villi.

Other diagnostic features of this condition are (1) cervical glands must be present opposite placental attachment and the attachment of placenta to the cervix must be intimate; (2) fetal elements cannot be present in corpus uteri. Further diagnostic signs are (1) uterine bleeding after amenorrhea and without abdominal pain; (2) a soft, enlarged cervix equal to or larger than the body of the uterus; (3) a snug internal os.

This case is unique in that review of literature does not include leiomyoma in the uterine cavity as a predisposing cause of the cervical pregnancy. The conceptus was probably unable to implant in the uterine cavity due to the presence of multiple leiomyomas and instead implanted in the endocervix.

Out of 83 cases of cervical pregnancies reported in the literature, this is the 31st confirmed case of true cervical pregnancy to appear.

Patterson, Joseph H., M.D.; Lindsey, I. L., M.D.; Edwards, E. S., M.D., and Logan, Wm. D., Jr., M.D., Dept. of Thoracic Surgery, Emory Univ. School of Medicine, Atlanta, Ga., "Pneumocystis Carinii Pneumonia and Altered Host Resistance: Treatment of One Patient with Pentamidine Isethionate," Pediatrics 38:388-397(September)1966.

Three infants with proved *Pneumocystis carinii* pneumonia and immunologic deficiency were reported. In two patients the diagnosis was not made antemortem and no specific antiprotozoal therapy was instituted. The third patient, a 7½ months old female with hypogammaglobulinemia, thymic alymphoplasia, and chronic pneumonitis, was treated with pentamidine isethionate after confirmatory open lung biopsy. Marked clinical improvement was documented. After relapse five months later the infant was retreated with pentamidine isethionate following a second positive lung biopsy and again dramatic clinical improvement resulted. This child died at age 17 months of progressive inanition and sepsis. No *Pneumocystis carinii* organisms were found on postmortem examination.

The immunologic deficiency was demonstrated in these patients and review of the literature substantiated the association between *Pneumocystis carinii* pneumonia and the presence of altered host resistance.

The advent of possible specific therapy demands an accurate diagnosis and the frequent necessity of prompt lung biopsy is emphasized.

Serum folic acid levels decreased significantly during each course of therapy suggesting that an important action of pentamidine may be that of a folic acid antagonist.

Though pentamidine therapy produced clinical improvement in the treated infant following each course of therapy and no *Pneumocystis carinii* organisms were present at necropsy, the underlying disease state of immunologic deficiency demands caution in predicting the ultimate outcome.

Barroso, Carlos H., Jr., M.D.; Florence, Thomas J., M.D., and Scott, Charles, Jr., M.D., Dept. of Urology, St. Joseph's Infirmary, Atlanta, Ga., "Bilateral Papillary Carcinoma of the Ureters: Presentation of a Case and a Two-Year Follow-Up Report," The Journal of Urology 96:451-454(October) 1966.

Bilateral tumors of the ureters are rare. Surgical correction of such condition with salvage of both kidneys and ureters is, we believe, unique. In reviewing the literature, not a similar case was found. Report of a case:

A retired farmer was seen in May, 1962 with gross hematuria. During urological evaluation, he was found to have a space occupying lesion in the lower third of the right ureter and a very similar lesion in the upper third of the left. Since the disease was bilateral, the very common nephroureterectomy was disregarded. Extraperitoneal left side approach was used to remove a polyp-like tumor. The base of the tumor was fulgurated, and the splint was left indwelling. The same procedure was performed 14 days later on the right side.

In November, 1964 bilateral bulbs retrogrades pyelograms were performed. They showed clean ureters way up with no signs of hydronephrosis or eventual metastasis.

Kubica, George P., M.D.; Jones, Wilbur D., Jr., M.D.; Abbott, Vella D., M.D.; Beam, R. E., M.D.; Kilburn, James O., M.D., and Cater, Jerome C., Jr., M.D., TB Unit, Laboratory Branch, CDC, Atlanta, Ga., "Differential Identification of Mycobacteria, I: Tests on Catalase Activity," American Review of Respiratory Disease 94:400-405 (September)1966.

A total of 530 cultures of mycobacteria were subjected to a blind study of their catalase activities. On the basis of frequency distributions, it was noted that all mycobacteria fell into three groups with respect to their catalase activity as determined on a simple semi-quantitative basis: (1) those devoid of catalase; (2) those producing less than 40 mm of bubbles in the test; (3) those producing more than 50 mm of bubbles. Heating the bacillary suspension to 68°C for 20 minutes prior to testing for catalase activity provided another character (positive enzymatic activity or negative activity) of value in numerical taxonomy.

Strains of *M. tuberculosis, M. bovis,* the "J" subgroup, and the clinically insignificant *M. kansasii* comprised that group which produced less than 40 mm of bubbles and had a negative reaction in the 68°C catalase test. The Battey-*avium*-swine complex of Group III produced less than 40 mm of bubbles but retained a positive reaction in the 68° catalase test. The remaining organisms produced more than 50 mm of bubbles and showed positive enzymatic activity in the 68°C test. A small group of 19 strains that were apparently devoid of catalase were cultures of *M. bovis,* and tubercle bacilli demonstrating at least partial *in vitro* resistance to isoniazid.

In all, the study of catalase enzyme activity has added three additional characters of value in an Adansonian type of classification.

Stone, John H., M.D., State of Ga., Dept. of Public Health, 47 Trinity Ave., S.W., Atlanta, Ga. 30334, "Ectopia Lentis, Cardiology and the Sign of the Tremulous Iris," American Heart Journal 72:466-468(October)1966.

Ectopia lentis, or displacement of the lens of the eye, is a valuable physical finding that occurs in a limited number of disease states. Conditions in which ectopia lentis may occur include the following: Marfan's syndrome, homocystinuria, the brachydactyly (Weill-Marchesani) syndrome, Ehlers-Danlos syndrome, osteogenesis imperfecta, following ocular trauma, and "spontaneous" dislocation. Various cardiovascular problems which have been associated with certain of the foregoing conditions are reviewed briefly.

Lens displacement occurs as a result of defects in the suspensory ligaments which fix the lens in place *posterior* to the iris. As a fortuitous result of this anatomy, a simple maneuver, used by opthalmologists but unfamiliar to many internists and cardiologists, will often suffice to detect ectopia lentis and make more sophisticated procedures unnecessary. With displacement of the lens, the anteriorly placed iris loses some of its support, and *iridodonesis,* or fluttering of the iris, occurs. As the patient moves his eyes from side to side, the iris is noted to tremble, either in part or as a

whole. The "sign of the tremulous iris" appears to be a certain sign of ectopia lentis; it may therefore be used as part of an informed physical examination in appropriate cases.

Goodrich, Samuel M., M.D., and Wood, J. Edwin, M.D., Dept. of OB-GYN, Medical College of Georgia, Augusta, Ga., "The Effect of Estradiol-17β on Peripheral Venous Distensibility and Velocity of Venous Blood Flow," American Journal of Obstetrics and Gynecology 96:407-412(October)1966.

Numerous clinical and experimental observations have indicated that the female sex hormones have some influence on cardiovascular and smooth muscle physiology. Other observations indicate that pregnancy as well as oral contraceptive therapy have a significant effect on the vascular wall of peripheral veins. This effect is to produce a significant decrease in venous tone which results in a decrease of the linear velocity of venous blood flow. The objective of this present investigation was to study the acute effects of estrogen (estradiol 17β) on the in vivo distensibility of human peripheral veins.

A previously described plethysmographic method utilizing a single chamber water plethysmograph was used in these experiments. Solutions of estradiol 17β containing 0.1 to 0.4 mg were infused into 12 normal females.

A significant increase in venous distensibility (p 0.01) is produced by estradiol 17β. There is a decrease in the linear velocity of venous blood flow but this was not statistically significant. The increase in venous volume and the decrease in the velocity of venous blood flow of the calf as measured in this study may explain why the increased cardiac output of pregnancy gradually returns toward normal values after the 28th week of pregnancy.

Rivers, Shirley L., M.D.; Whittington, Richard M., M.D., and Medrek, Theodore J., M.D., VA Hospital, 1670 Clairmont Rd., N.E., Atlanta, Ga., "Treatment of Malignant Lymphomas With Methyl Ester of Streptonigrin (NSC 45384)," Cancer 19:1377-1385 (October)1966.

Forty-three patients with lymphomas or chronic lymphocytic leukemia were treated with intravenous methyl ester of streptonigrin. The total dose for a single course ranged from 0.05 to 0.3 mg/kg, the optimum being 0.1 mg/kg. Thirty patients lived for at least six weeks and were considered evaluable. Nine objective remissions were seen in Hodgkin's disease, five in lymphocytic lymphoma, two in mycosis fungoides and four in chronic lymphocytic leukemia. The other ten patients showed some evidence of favorable drug effect. Immediate toxic reactions were mainly nausea and emesis, though three patients had striking but reversible hypotension at the time the drug was administered. Thrombocytopenia occurred in 4 patients and leukopenia in 15 patients. Marrow suppression was generally reversible in two to three weeks.

Olansky, Sidney, M.D., and Norins, Leslie C., M.D., Emory Univ. School of Medicine, and the VD Branch, CDC, Atlanta, Ga., "Current Serodiagnosis and Treatment of Syphilis," JAMA 198:165-168 (October10) 1966.

A review of the serologic diagnosis and treatment of syphilis and suggestions for management for the so-called biologic false-positive reactors is outlined.

So far no evidence of resistance of T Pallidum to penicillin has been demonstrated, such as has been seen with the gonococcus. However, penicillin sensitivity requires that caution be observed in the administration of penicillin. The newest testing procedure, which has been of great value, is the FTA-ABS test, which seems to have more sensitivity and equal or better sensitivity than the TPI test.

In view of the rising incidents of infectious syphilis it would seem logical to expect an increase in congenital and latent syphilis in the not too distant future.

Torpin, Richard, M.D., Dept. of OB-GYN, Medical College of Georgia, Augusta, Ga., "Breus Subchorial Hematoma Mole at Three or Four Months of Pregnancy," Pacific Medicine and Surgery, 74:226-227,1966.

Case report. A 25-year-old woman at Shiraz, Iran, in her 9th pregnancy (7 living) produced a typical Breus mole excepting that the compressed fetus had arrived at the age of three or four months. The mother's last period was seven months prior. It was postulated that the placenta began as a circumvallate and was completely separated from the uterine wall without immediate abortion. Subsequently a necrotic membrane formed over its maternal surface. This membrane retained the incorporated maternal blood which, by long compression of the uterine wall, was forced into the fetal sac space, depressing the sac wall at intervals producing the characteristic hematomas.

Torpin, Richard, M.D., and Faulkner, Alva, M.D., Dept. of OB-GYN, Medical College of Georgia, Augusta, Ga., "Intrauterine Amputation With the Missing Member Found in the Fetal Membrane," JAMA 198:185-187 (October10)1966.

Case report. A newborn infant was active and apparently healthy with exception of intrauterine amputation of the right arm, with bone protruding from the stump, and with marked clubbing of the feet. The detached arm of about 4½ months development and with a fragment of the humerus protruding was found in the fetal membranes. The fetal sac was reconstructed and the placenta (circumvallate) was located low on the posterior wall. The amnion had ruptured, presumably early in gestation, and remained as a rug-like placque surrounding the umbilical cord on the placenta. Arising from the lower left portion of the chorionic wall was a strand of tissue free in the cavity of the sac. This was considered to have encircled the arm, constricted it and eventually effected its amputation. A few weeks prior to onset of labor, the fetus, with movement of the bone tipped stump, had apparently scratched 5 longitudinal holes in the lower anterior portion of the sac which was composed of chorion only. Subsequently the amniotic fluid constantly escaped per the mother's vagina.

Williams, George A., M.D.; Richardson, A. Cullen, M.D., and Hathcock, Earl W., M.D., Dept. of OB-GYN, Crawford W. Long Mem. Hosp. and Emory Univ. School of Medicine, Atlanta, Ga., "Topical Testosterone in Dystrophic Diseases of the Vulva," American Journal of Obstetrics and Gynecology 96:21-30(September)1966.

The problem of diagnosis and classification of dystrophic diseases of the vulva and their potential for neoplastic change is reviewed. Therapeutic management, which in the past has run the gamut of virtually everything from psychiatric treatment to vulvectomy, is discussed. Further experience with a regimen which consists of the addition of topical testosterone proprionate to generally accepted hygienic and antipuritic measures is reported. Results of treatment of 57 patients, half of them observed for eight to 15 years or more, are presented. Rationale of the use of testosterone and possible mechanism of its beneficial effect are discussed. The authors regard testosterone proprionate as a specific stimulant for vulva integument which also has an aphrodisiac effect in the woman who is basically normal in sexual orientation.

Jackson, Richard T., Ph.D., and Turner, John S., Jr., M.D., ENT Div., Emory Univ. Clinic, Atlanta, Ga., "Some Observations on Nasal pH," Archives of Otolaryngology 84:446-450(October)1966.

The pH of the nasal mucosa was measured in a large group of persons in an effort to establish the pattern of normal changes that occur in the noses of healthy adults and older children. No differences in nasal pH were apparent among age or sex groups. An alkaline shift in the nasal pH coincident with the onset of menses was recorded in two women. The pH of the nasal mucosa was found to be higher during winter months. Wide fluctuations in nasal pH may occur during different observations in a 24-hour period. In addition, considerable variation can exist between the nostrils of a person. Measurements of pH following xylometazoline spray showed no evidences of pH "rebound," and the medication apparently does not affect the glands that produce the nasal mucus.

ATLANTA VA HOSPITAL HOSTS RUSSIAN DOCTOR STUDYING ADVANCED TECHNIQUES TO COMBAT TUBERCULOSIS

The advanced technologies that permitted the Veterans Administration to remove tuberculosis from the scourge list during the past decade are going behind the Iron Curtain to improve the attack on the dread disease in Poland.

Dr. Maria Buraczewska of the Gruzlicy Institute of Warsaw, Poland, has returned to her medical post to apply these technologies to her research on mycobacteria as well as instruct her associates in the advanced methods she learned during a one-month stay at the Atlanta, Georgia, VA hospital. Her work with the World Health Organization helped her obtain a grant from the National Institutes of Health on which to make the visit to the United States.

Czechoslovakia Meeting

In October, 1965, Dr. Buraczewska met W. B. Redmond, Ph.D., Chief of Tuberculosis Research at the Atlanta VA hospital, while he was serving as Chairman of the World Health Organization Symposium on Phage Typing of Mycobacteria at Prague, Czechoslovakia.

At the Symposium, Dr. Redmond presented papers on the progress being made at the VA hospital in isolating and identifying tubercle bacilli and other important mycobacteria by phages in much the same manner that brought phenomenal results on most other groups of bacteria, such as in staphylococcus infections.

Interest Heightened

Dr. Buraczewska's interest heightened as Dr. Redmond pointed up the fact that the isolation and identification of many strains of mycobacteria would permit determination of those strains susceptible to drugs and those resistant to certain drugs.

Dr. Redmond's report was based on a cooperative research project with four other VA hospitals in which approximately 1,200 strains of mycobacteria, 90% of them important in human disease, have been typed using a group of 13 phages. Isolation and identification of about 500 strains obtained from hospital patients have been achieved. The majority are mycobacteria other than tubercle bacilli that are the cause of disease.

Just a dozen years ago, the VA had 21 hospitals primarily devoted to tuberculosis treatment. However, VA's research brought to light many drugs which have been so effective in shortening the infectious stage of TB that, today, VA operates only two hospitals primarily for TB.

Dr. Redmond's phage typing extended over into the epidemiological field just recently when the U. S. Naval Medical School, National Naval Medical Center, Bethesda, Maryland, supplied him with 20 mycobacteria specimens obtained from infected personnel aboard one Navy ship over a 16-month period. Successful phage typing of these strains will permit health officials to determine from which ports the infections were picked up.

MEDICAL COLLEGE OF GEORGIA APPOINTS NEW ADMINISTRATOR OF HOSPITAL AND CLINICS

Walter W. Diggs has been appointed Administrator o Hospital and Clinics at the Medical College of Georgia Included within his range of duties will be the adminis tration of the Eugene Talmadge Memorial Hospital, th Medical College's teaching hospital.

His appointment was announced by Dr. Walter G Rice, Dean of the School of Medicine at MCG.

The new administrator comes to the Medical Colleg of Georgia from Johns Hopkins Hospital, Baltimore Maryland, where he has been on the administrativ staff and since 1962 has been in the area of Operation Research as applied to new construction.

A graduate of Washington and Lee University, wher he received his BS degree, Diggs received an MS degre in Hospital Administration from the University of Min nesota. He attended the U. S. Naval Officers' Candidat School where he was commissioned a Lieutenant in th U. S. Naval Reserves.

Diggs' experience includes assisting in the opening o Stonewall Jackson Hospital, Lexington, Virginia; Ac ministrative Residency in the Stormont-Vail Hospita Topeka, Kansas; and as Administrative Officer in pe sonnel and dependents service at the U. S. Nav Hospital.

The son of Dr. L. W. Diggs of Memphis, Tennesse a well-known pathologist-hematologist, the new admir istrator is married and has three children.

FILM, "CURRENT CONCEPTS OF ESTROGEN REPLACEMENT THERAPY," NOW AVAILABLE FROM AYERST LABORATORIES

Excerpta Medica Foundation held a symposium i New York City, December 13-14, 1965, to answer th questions: Is the menopause a pathologic occurrence Should it be medically treated?

Five leading gynecologists and endocrinologists ga a consensus of contemporary medical thinking on th menopause. Participants were:

Dr. Clayton Beecham (Moderator)—Director, Dep of Gynecology and Obstetrics, Geisinger Medical Ce ter, Danville, Pa.

Dr. C. Donald Christian—Associate Professor Obstetrics and Gynecology, Duke University Medic Center, Durham, N. C.

Dr. Robert Franklin, Associate Professor of O GYN, Baylor University College of Medicine, Houstoı Texas.

Dr. Robert Greenblatt—Professor and Chairman, D partment of Endocrinology, Medical College of Georgi Augusta, Ga.

Dr. Sherwin Kaufman—Assistant Attending Phys cian in Gynecology and Obstetrics, New York Un versity, Medical Center, New York, N. Y.

Film is available from Ideal Pictures, 133 Nassa N.W., Atlanta, Georgia, or an Ayerst Laboratori Representative will make the necessary booking arrang ments. Ten prints are available.

)EATHS

Daniel Marcus Bradley, 81, Waycross, died Novem-er 3, 1966, in Memorial Hospital after a brief illness.

He graduated from the University of Georgia Medical 'ollege in 1907 and began practicing medicine in Way-ross in 1908.

He was a member of the Radiological Society of ımerica and worked extensively with the treatment of ancer, being called a pioneer in treatment of the dis-ase.

He was cited this year by the Waycross Pilot Club ɔr his service and leadership to the community.

A veteran of World War I, he was a member of First Iethodist Church which he served on the board of ;ewards and was a former chairman of that board.

He was a member of Frank C. Folks Lodge No. 192 . & A.M., a member of the Georgia Medical Associa-on and the Ware Medical Society.

He served for many years on the City Board of Edu-ıtion.

Dr. Bradley is survived by his widow, Mrs. D. M. radley, Waycross; one daughter, Miss Anita Bradley, Vaycross; one son, Daniel M. Bradley, Neptune Beach, lorida; one sister, Miss Bessie F. Bradley, Hagan; three randchildren and a number of nieces and nephews.

Michael Joseph Egan, 75, who had practiced in avannah since 1919, died November 5, 1966, at St. ɔseph's Hospital after a long illness.

Dr. Egan, a native Savannahian, was honored upon is graduation from the University of Maryland Medical chool for having the highest scholastic average attained t the school. He was a 1909 graduate of what was then nown as Benedictine College, and was a graduate of t. Mary's College in Dunkalk, Ireland.

He served his medical residency at the University lospital and St. Joseph's Hospital in Baltimore, Mary-ınd. He was a member of the American College of urgeons, a past president of the medical staff at St. ɔseph's Hospital here, and also a past chairman of the oard of governors of the hospital's medical staff.

He was a former member of the Chatham County oard of Education, a past president of the Hibernian ociety of Savannah, and a member of the board of rmstrong College. He was a veteran of World War I, uring which he served with the Medical Corps.

He is survived by his wife, Mrs. Elise Robider Egan; daughter, Mrs. James P. Houlihan; two sons, Michael Egan, Jr., of Atlanta and Brother Coleman Egan, .C.S.O.; a brother, Msgr. Martin Egan of Fairmont, Vest Virginia; three sisters, all nuns—Mother Mary heresa, O.S.U., Mother Marguerete, O.S.U., and Iother St. Martin, O.S.U., all of Chatham, Ontario, anada; and seven grandchildren.

Henry C. Frech, 55, died November 9, 1966, at his :sidence in Savannah.

A native of Savannah, Dr. Frech was a member of the Lutheran Church of the Ascension. He was the immediate past president of the German Heritage Society and was a member of Solomon's Lodge, F. & A.M. and Alee Temple. He was also a veteran of the Korean War.

He was a graduate of the University of Georgia and the University of Georgia School of Medicine. He was a Diplomate of the Board of Obstetricians and Gynecologists and the American College of Surgery. He was a Fellow of the American Academy of Obstetrics and Gynecology and a member of the South Atlantic Association of Obstetricians and Gynecologists and of the local and state Medical Societies and the American Medical Association.

Surviving are his wife, Mrs. Irma Booth Frech; a son, Henry C. Frech, III, of Savannah and a daughter, Mrs. Warren St. John of Birmingham, Alabama.

Walter Clinton Goodpasture, an Atlanta obstetrician and gynecologist who taught at Emory University School of Medicine for 23 years, died November 5, 1966. He was 77.

Born in Muncie, Indiana, he studied at Purdue University and took an M.D. degree at Emory in 1918. He interned in an Atlanta hospital, and later served on the staffs of Grady, St. Joseph's, Piedmont, Georgia Baptist and Emory University hospitals.

Dr. Goodpasture taught at Emory's medical school from 1925 until 1948. He retired from private practice in 1959.

He was a member of Asklepios medical honorary society, Phi Rho Sigma medical fraternity, Fulton County Medical Society, the Medical Association of Georgia and the American Medical Association.

He was a former member of the Ansley Golf Club, the Druid Hills Country Club and the Atlanta Athletic Club. He was a member of the Methodist Church.

Surviving are the widow, the former Lucy Morris; daughter, Mrs. William A. Hall, Jr., of Atlanta; brother, Merrill J. Goodpasture of Muncie, Indiana, and two grandsons.

COUNTY MEDICAL SOCIETIES

Brent Fox, Columbus, was installed in November as President of the **Muscogee County Medical Society,** and C. Denton Johnson, also of Columbus, was named President-elect for the coming year. Dr. Fox succeeds Louis Hazouri, Columbus, as President of the society. Dr. Hazouri and all other past presidents were honored at the meeting with the presentation of lapel pins.

PERSONALS

Second District

Dr. and Mrs. **Otis J. Woodard,** Albany, returned from Miami recently where they attended a meeting of the American Psychiatric Association. Dr. Woodard

presented a paper, "The Treatment of Psychiatric Disorders with Condition Reflex Therapy," based on the work of Pavlov.

Third District

Robert Talley, Columbus, was the guest speaker at a meeting of the Muscogee County Chapter of Medical Assistants held November 1, 1966, at the Health Department Auditorium. Dr. Talley spoke to the group on, "Religion and Medicine."

Fifth District

Earnest C. Atkins, Atlanta, has been elected chief of the medical staff of DeKalb General Hospital. Dr. Atkins will succeed **Fincher C. Powell** who is retiring after completion of the two-year limit prescribed by staff by-laws.

John T. Godwin, President of the Fulton County Medical Society, upon the invitation of President Lyndon B. Johnson, attended the signing of the Allied Health Professions Act and the Comprehensive Health Planning and Public Health acts.

A longtime Atlanta physician was honored with a Distinguished Service Award on November 15 by the Board of Directors of the Georgia Tuberculosis Association during its meeting to kick off the 1966 Christmas Seal Campaign in Georgia.

Carl C. Aven, a board member of the Atlanta Tuberculosis Association since 1915, was cited for his more than 50 years of service to the people of Georgia.

Daniel D. Hankey of Atlanta has been elected President of the Georgia chapter of the Arthritis Foundation.

Vernelle Fox, Atlanta, was the guest speaker at a meeting of the Newton-Rockdale Medical Society in November. Dr. Fox is medical director of the Georgian Clinic for Alcoholic Rehabilitation. Her talk included many facts and figures on alcoholism.

Sidney Olansky, Atlanta, attended the meeting of the Southern Medical Association in Washington November 12-15. He was elected the President of the Dermatology Section.

Eighth District

The Glynn-Brunswick Memorial Hospital has established a wing for children and named it the Joseph B. Mercer, M.D. Pediatric Wing in honor of the late **Joseph B. Mercer** of Brunswick.

HARTFORD FOUNDATION GRANT AWARDED TO AMERICAN COLLEGE OF SURGEONS FOR SUPPORT OF FIELD PROGRAM IN TRAUMA

A three-year grant of $275,000 to the American College of Surgeons has been awarded by The John A. Hartford Foundation, Inc., of New York City for support of the Field Program in Trauma to improve care of the injured patient.

The Board of Regents has accepted the grant to carry out various projects in the education of the public on comprehensive emergency care, including adequate ambulance service and hospital emergency departments for communities. The grant period will begin September 1, 1966, and run through August 31, 1969.

Third Grant

This is the third, three-year grant from the Hartford Foundation for the Field Program in Trauma. The first two grants were for $150,000 each.

Dr. Robert H. Kennedy, New York, director of the program, said that "under the new grant the program's emphasis will be on educating the public and getting its support for the best possible care of the injured person from the time of an accident until definitive treatment is started, and for improvement in the care provided to accident victims in hospitals.

"One of the first projects," said Doctor Kennedy, "will be the production of a film on ambulances and the training of ambulance personnel."

In 1965 a film on "The Emergency Department: Organization and Operation" was produced with funds from the Hartford Foundation grant.

Other important projects carried out during the three years of the second Hartford Foundation grant (1963-66) included a 128-page "Manual on Emergency Care," and correlation of data on ambulance service in the United States and Canada.

Initiated in 1960

The Field Program in Trauma was initiated in 1960 with the first Hartford Foundation grant (1960-63). Its efforts were aimed at improving the care of the patient in the emergency department of the hospital.

Some of the projects completed during that three year period included:

—Some 300 on-site surveys of emergency departments.

—Construction of a model of an approved plan for a hospital emergency department and showing of the exhibit at national medical and hospital conventions.

—A brochure on "A Model of a Hospital Emergency Department."

—A guide to "Organization and Management of the Emergency Department in the Hospital," published in collaboration with the American Hospital Association.

—Formulation of a set of Standards for Emergency Departments, endorsed and reprinted by the Joint Commission on the Accreditation of Hospitals.

In adopting a resolution accepting the 1966-69 grant the Board of Regents expressed "its sincere appreciation to the Hartford Foundation for its generosity in support of this program."

Medical Association of Georgia

JOURNAL OF THE MEDICAL ASSOCIATION Georgia FEBRUARY / 1967

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THE FUNCTIONAL AND THERAPEUTIC CLASSIFICATIONS OF PATIENTS WITH DISEASES OF THE HEART*

*Excerpted from *Diseases of the Heart and Blood Vessels — Nomenclature and Criteria for Diagnosis*, 6th edition, Boston, Little, Brown and Company, copyright 1964 by the New York Heart Association, Inc., and available from the publisher, medical bookstores, and through local Heart Associations.

Functional Classification

Note: The classification of patients according to their cardiac functional capacity gives only a part of the information needed to plan the management of the patient's activities. A recommendation of prescription regarding physical activity should be based on information derived from many sources. The functional classification is an estimate of what the patient's heart will allow him to do and should not be influenced by the character of the structural lesions nor by an opinion as to treatment or prognosis.

Class I. Patients with cardiac disease but without resulting limitations of physical activity. Ordinary physical activity does not cause undue fatigue, palpitation, dyspnea, or anginal pain.

Class II. Patients with cardiac disease resulting in slight limitation of physical activity. They are comfortable at rest. Ordinary physical activity results in fatigue, palpitation, dyspnea, or anginal pain.

Class III. Patients with cardiac disease resulting in marked limitation of physical activity. They are comfortable at rest. Less than ordinary physical activity causes fatigue, palpitation, dyspnea, or anginal pain.

Class IV. Patients with cardiac disease resulting in inability to carry on any physical activity without discomfort. Symptoms of cardiac insufficiency or of the anginal syndrome may be present even at rest. If any physical activity is undertaken, discomfort is increased.

Therapeutic Classification

Note: The therapeutic classification is intended as a guide to the management of the activities of cardiac patients. It gives a prescription for the amount of physical activity which is advised for those in each functional class. From a practical point of view, it should be translated into terms of daily physical activity, such as walking a certain number of yards, climbing a specified number of stairs, lifting a certain number of pounds, and standing for an unlimited or limited part of the working day. For children it is necessary to individualize with permissible play programs, specifying the type and duration of outdoor and indoor activity which may be performed.

Class A. Patients with cardiac disease whose physical activity need not be restricted in any way.

Class B. Patients with cardiac disease whose ordinary physical activity need not be restricted, but who should be advised against severe or competitive efforts.

Class C. Patients with cardiac disease whose ordinary physical activity should be moderately restricted, and whose more strenuous efforts should be discontinued.

Class D. Patients with cardiac disease whose ordinary physical activity should be markedly restricted.

Class E. Patients with cardiac disease who should be at complete rest, confined to bed or chair.

Note: The functional capacity of the patient does not always determine the amount of physical activity that should be permitted. For example, although a child at the onset of active rheumatic carditis may not experience discomfort on playing baseball, rest in bed is imperative. Such a patient would be designated as Class I (Functional), E (Therapeutic). There is frequently a difference between the amount of activity which a patient can undertake in terms of his functional capacity and that which he should attempt in order to prevent aggravation of his disease. The recommendation of physical activity is based not only upon the amount of effort possible without discomfort but also upon the nature and severity of the cardiac disease.

See page 69

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The Functional and Therapeutic Classifications of Patients with Diseases of the Heart are available on request from the Georgia Heart Association, 2581 Piedmont Road, N.E., Atlanta, Georgia 30324.

JOURNAL OF THE MEDICAL ASSOCIATION Georgia

ARTERIAL STENOSIS AND AUTOREGULATION OF THE CIRCULATION

Thomas Findley, M.D., *Augusta*

■ Implications for the surgical treatment of occlusive vascular diseases are discussed.

MODERN ARTERIOGRAPHIC TECHNIQUES and the astonishing advances in vascular surgery have created much interest in the recognition and treatment of ischemic organs. These technical achievements have made possible the salvage of extremities, the abolition of repetitive strokes, and the cure of some hypertensive states. The current enthusiasm for visualization of the vascular tree is therefore understandable, but it should also be realized that radiological findings can be misleading if one assumes that arterial constriction induces a proportional drop in distal blood flow. In addition, these procedures carry a small but measurable risk.

Lively Channels, Not Inert Conduits

The clinician interested in avoiding useless surgery will know that blood vessels, especially the smaller ones, are not inert conduits but lively channels exquisitely responsive to stimuli which tailor blood flow to the metabolic needs of the tissue involved. Since they dilate when the pressure within them falls, and constrict when it rises, it is plain that flow has priority over pressure. The hemodynamic principle involved is represented by the familiar equation—*Pressure = Flow × Resistance*. When transposed with emphasis on tissue perfusion ($F = P/R$), it is evident that flow is determined by an inverse relationship between hydrostatic pressure of the blood and the calibre of the vessels through which it flows. Since tissues are rarely supplied with more blood than they require for any length of time, one finds that a rise in blood pressure is soon followed by vascular constriction and, conversely, that a fall in blood pressure induces vasodilatation, flow thus remaining constant in either instance. The mechanisms involved are referred to as *autoregulatory*. They are not well understood despite intensive study since 1902 when Bayliss[1] related them to an inherent ability of smooth muscle to increase its tone when stretched and to relax when intravascular pressure subsides. A recent review, however,[2] suggests that chemicals of metabolic origin may be of even greater significance (Figure 1). Important vasodilating substances are CO_2, acetylcholine, histamine, adenosine, the kinins, prostaglandin, lactic acid, and some cations (Na^+, K^+, H^+, Mg^{++}) while the chief known vasoconstrictors are O_2, nor-epinephrine, angiotensin, serotonin, and Ca^{++}. Whatever the precise mechanisms may be, they act to adjust flow to local metabolic needs.[3] If $\frac{\text{flow}}{\text{metabolism}}$ = resistance, then vasodilatation (resistance↓) occurs when flow fails to

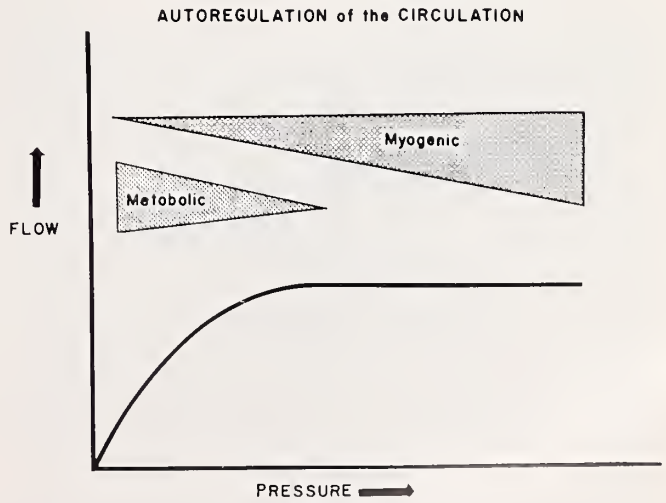

FIGURE 1

Wide variations in blood pressure (P) have little effect upon blood flow (F). The influence of vasoactive metabolites is most apparent when tissue is ischemic; as flow increases, the Bayliss response predominates.

From the Department of Medicine, Medical College of Georgia and the Veterans Administration Hospital.

meet metabolic needs, and vasoconstriction (resistance↑) follows an excess of flow over metabolic requirements. Obviously the inciting stimulus may involve either the numerator (flow) or the denominator (metabolism).

The Kidney

When Goldblatt showed that a disorder very much resembling essential hypertension could be produced in dogs by partial occlusion of the renal arteries, it was inferred that renal ischemia was the "cause," but it was soon shown that renal blood flow quickly returns to normal unless the arterial clamp is very much tightened. There is abundant radiological and pathological evidence that stenosis of renal arteries, even with post-stenotic dilatation, occurs commonly in normotensive humans,[4, 5] and in hypertensive subjects the obstructing arterial plaques may well be the result of the hypertensive process rather than its cause.

If the renin-angiotensin-aldosterone axis is pathogenetically important, the juxtaglomerular apparatus (J.G.A.) may be activated in at least two ways[6] (Figure 2). It has been suggested that the *macula densa,* a specialized portion of the distal convoluted tubule near the hilum of the glomerulus, may be a chemoreceptor responsive to changes in the sodium concentration of tubular fluid, hypernatremia stimulating the release of renin and hyponatremia its suppression. A more widely held view, however, is that the *juxtaglomerular cells* in the afferent glomerular arterioles stop secreting renin when intravascular-tension rises, whereas a drop in intravascular pressure evokes renin release and aldosteronemia. Whatever the details, the kidney has an extraordinary capacity to maintain its blood flow and nutritional requirements in the face of substantial decrements in renal artery pressure, and the Bayliss response seems to be a more important autoregulatory factor than in other organs.[7] It is a vital link in the homeostatic events which follow fluctuations in cardiac output, arterial pressure and sodium metabolism. In any event, recommendations for renovascular surgery on the hypertensive patient cannot rest on angiographic studies alone but must be supported by physiological evidence of abnormalities in renal blood flow and glomerular filtration rate. It is estimated that the cross-sectional area of the renal artery must be reduced by at least 70% and that the pressure gradient across the obstruction be 40 mm. Hg or more before renal ischemia follows.[8] Milder obstruction is compensated for by intra-renal vasodilatation.

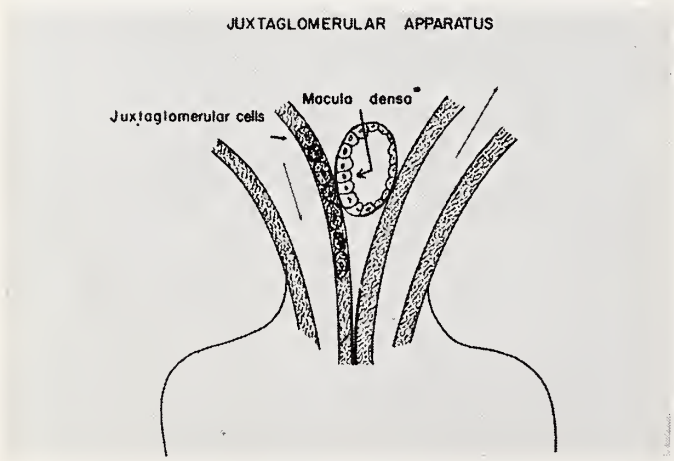

FIGURE 2

There are two units in the juxtaglomerular apparatus (JGA). The juxtaglomerular cells are in the wall of the afferent glomerular arteriola, and they may respond to changes in intravascular pressure. The specialized cells in the proximal convolution (macula densa) may be sodium-sensitive chemoreceptors. The relationship between the two structures is unknown.

To Explain Development

These autoregulatory responses have also been evoked to explain the development of essential hypertension. Professor Borst of Amsterdam[9] has presented an intriguing hypothesis which attributes high blood pressure to deficient sodium excretion by the kidneys, an event which leads to hypervolemia, increased filling of the heart, and a high cardiac output. Since increased flow (cardiac output) cannot be long sustained at levels greater than those required by the metabolic needs of the body, accumulation of extra-cellular fluid is prevented by activation of the Bayliss myogenic reaction and arterial pressure rises. Patients with essential hypertension are known to have normal blood volume and cardiac output, so it may be assumed that the increased resistance (R) and hence the hypertension (P) is a device for preventing sodium accumulation and circulatory overload (F). Arterial pressure is determined by the degree of sodium retention and is set at whatever level may be required to maintain the subject in sodium balance.

The Heart

It is natural that surgeons should interest themselves in the treatment of ischemic heart disease but here again minor reductions in coronary arterial pressure do not alter coronary blood flow.[10, 11] The regulatory mechanisms involved are not well understood but the fact that coronary venous blood maintains an oxygen saturation value of about 30% over wide ranges of pulse rate and blood pressure indicate that the blood supply of the myocardium is delicately responsive to its metabolic needs.[12] Pressure and resistance vary in a parallel fashion, although to a lesser extent than in the kidney. The calibre of small vessels and hence the resistance they offer to flow seem somehow related to the rate of oxygen con-

sumption by the heart or to the accumulation of unknown metabolites with vasodilatory and pain-producing properties. Only severely stenotic arterial lesions in the main coronary arteries (greater than a 50% reduction in luminal diameter) can be expected to cause significant ischemia of ventricular muscle[13] although all diminish the heart's reserve.

Cardiac output and pulmonary blood flow are for all practical purposes identical. The complex factors influencing the performance of the heart cannot be discussed here, but autoregulation of blood flow in the lungs is of limited importance because the small blood vessels there: (1) contain no smooth muscle and therefore respond passively to changes in intravascular pressure and volume and (2) they react anomalously to changes in the composition of alevolar air, a decrease in O_2 concentration inducing vasoconstriction in contradistinction to the vasodilatation which usually takes place in the systemic circulation under hypoxic conditions. Lying like a check-valve between the right and left ventricles of the heart and influenced also by changes in intrapleural pressure, the pulmonary blood vessels respond passively to variations in the O_2 and CO_2 content of their environment.[11] They constitute a distensible compartment where both pressure and resistance are low so the inverse relationship between pressure and resistance ($F = P/R$) is less apparent here. Autoregulation must be of some significance because cardiac output (F) is often normal in patients with pulmonary stenosis, but in many with left-right shunts, resistance and pressure rise together with the increase in flow.

The Brain

Obstructive lesions in the carotid-basilar arterial system deserve the same cautious evaluation. Cerebral blood flow must fall to about 60% of normal before autoregulation fails to prevent ischemia.[12] CO_2, the end product of brain metabolism, is an important vasodilating substance, although the myogenic reaction plays a role.[13] Direct measurements on conscious humans have shown that the cross-sectional area of the common carotid artery must be reduced to about 2 mm.^{2} (normal—about 30 mm.^{2}) or less before cerebral blood flow is diminished.[14] The major resistance to flow is in the smaller vessels, so that obstruction of the larger extra-cranial arteries is of secondary importance.

Similar responses have been described in the intestine[15] and in skeletal muscle[16] where changes in perfusion pressure evoke parallel changes in resistance so that flow is constant. A good example of these homeostatic processes at work in a natural setting is seen in patients with coarctation of the aorta where blood flow in the arms and legs remains equal and normal despite marked differences in pressure. The implications for the claudicator are obvious; while surgical procedures designed to remove or bypass segmental lesions are logical, the patient with diffuse vascular insufficiency is not apt to be helped by sympathectomy, because his collateral circulation is already at its maximum level due to the action of vasodilating metabolites.

Conclusions

1. Blood flow remains relatively constant despite wide fluctuations in blood pressure.

2. Only severe arterial stenosis causes significant ischemia.

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Note: For an important and nearly overlooked symposium, see Monograph # 8—Autoregulation of Blood Flow —P. C. Johnson, Editor, American Heart Assn., New York, 1964.

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THE SHOULDER-HAND SYNDROME IN CORONARY DISEASE

William T. Minter, III,* *Macon*

"SHOULDER-HAND SYNDROME" is a term which has been applied to a symptom-complex consisting of simultaneous occurrence of what resembles a painful "frozen shoulder" and associated pain and swelling in the hand, in which trophic changes may be apparent. Sometimes the shoulder or hand, or both, also may be involved on the opposite side. While it has been associated with many disease entities, its occurrence following coronary artery insufficiency of varying degrees has received much attention. Luisada[1] states that some 10%-15% of patients who have suffered myocardial infarction manifest this syndrome. Steinbrocker[2, 3] in studies of over 150 patients with reflex dystrophy in the upper extremities found many provocative conditions. In his experience 20% followed myocardial infarction, 20% were associated with cervical disk disease, 20% were idiopathic, and the remainder were associated with a wide variety of conditions. In other studies[4, 5] a similar distribution of 30% post-infarction, 10% in association with cervical disk disease and 10% idiopathic was noted.

Recognized Sequel

The occurrence of disability and pain in the shoulder as an occasional sequel of coronary artery disease has been recognized for many years. Sir William Osler[6] first described "motor disability" of the shoulder as a sequel to anginal attacks in 1897. However, this association received little attention in the literature until 1930 when Howard[7] reported several cases in which a painful shoulder developed simultaneously with or following myocardial disease. Libman[8] in 1935 in a symposium on angina pectoris, emphasized the fact that a "subacromial bursitis" will frequently follow a coronary thrombosis within a short time. He further emphasized the relationship of shoulder pain and angina pectoris. In 1936 Edeiken and Walferth[9] reported 14 cases in which a "more or less constant and persistent pain in the shoulder region" developed within a period of four months after an acute myocardial infarction and lasted from a period of seven weeks to five years. Subsequently, other workers[10, 11, 12] have stressed the occurrence of a painful stiff shoulder in patients with various degrees of coronary insufficiency.

In 1938 Oppenheimer[13] reported on 14 patients with cervical disk degeneration in whom dystrophic changes occurred in the hand and were associated with pain and stiffness in the shoulder. This author believed that the disk degeneration was the underlying cause of the dystrophy but failed to correlate the shoulder and hand manifestations. The first to report in the literature of hand changes following myocardial disease were Ernstene and Kinell,[14] when in 1940 they reported on 17 patients with myocardial infarction and discussed six patients with "rheumatoid arthritis" of the hands simultaneous with, or subsequent to, shoulder manifestations. They, too, fail to point out any relationship between the hand changes and the shoulder pain. In 1941 Askey[15] described as a definite syndrome combinations of hand and shoulder symptoms following infarction. A similar clinical syndrome was described by Johnson[16] in 1943 under the term "post-infarction sclerodactylia" in a group of 39 patients with pain, stiffness and swelling of the hands following myocardial infarction. He believed the changes to be similar to the ones of scleroderma and Raynaud's disease. He failed to consider the fact that the hand changes were related to shoulder manifestations despite the fact that 34 of his cases showed unilateral and bilateral shoulder disability and pain.

■ **Liberalization of management of patients with myocardial infarction seems to have lowered the incidence of this troublesome complication.**

In 1947, Steinbrocker[17] reviewed the literature and described the syndrome in detail. He introduced the term "shoulder-hand syndrome." He suggested that this syndrome represented varying degrees of re-

* *Dr. Minter is a 1966 graduate of the Medical College of Georgia, Augusta. The above scientific paper was written as Dr. Minter's Senior presentation.*

flex sympathetic dystrophy and neurovascular response observed at different stages. He further suggested that although similar pictures could be depicted from a number of conditions, any patient presenting with the syndrome should be evaluated from a cardiac standpoint.

The pain of the shoulder-hand syndrome is regarded by many as a true referred pain. The pain may start as early as a week and as late as seven months after myocardial infarction. The shoulder disability usually precedes the changes of the hand by an interval of a few weeks. The shoulder is tender to touch and there is frequently marked limitation of motion of abduction and external rotation. The involved hand becomes diffusely swollen and tender. It usually shows varying degrees of vasomotor disturbances. The disorder may be limited to the shoulder alone or may be confined primarily, or solely, to the hand. In its most advanced stage the shoulder is "frozen" and the hand is affected with irreversible contractures. The condition may be unilateral or bilateral.

Three Stages

Steinbrocker[17] from his study of cases of varied etiologies described three stages in the evolution of the shoulder-hand syndrome:

Stage One. This stage, lasting from three weeks to six months, is characterized by a painful shoulder with swelling and pain and stiffness in the hands and fingers. It may begin in the shoulder or hand and involve one or both upper extremities. There is diffuse swelling of the fingers and hands with limitation of finger movement but with little pitting edema. The skin becomes smooth and may exhibit trophic changes, with desquamation in some cases. The hand may be dusky pink, pale or cyanosed.

Stage Two. This stage might last from three to six months. It is characterized by a gradual lessening of shoulder pain with resolution of the swelling of the hand. The hand becomes increasingly stiff with flexion deformity of the fingers, atrophy of the subcutaneous tissue and wasting of the small muscles. Early trophic changes of the skin may be noted with thickening of the palmar fascia. Some patchy osteoporosis is often demonstrable.

Stage Three. This stage may last many months. It is characterized by a smooth, glossy skin with trophic changes and atrophy of subcutaneous tissue. The hand becomes atrophic with a thickened palmar fascia and Dupuytren-like contracture. Osteoporosis is usually marked.

Others[18] have suggested a slightly different sequence of events in the clinical picture.

The age and sex incidence in the syndrome varies with the precipitating factor; for example, following coronary thrombosis the age and sex distribution is the same as in that condition.[19] In general precipitating causes, the condition is slightly more common in females, with over 90%[3, 4] occurring in patients over 50 years of age; however, in the group following infarction, the predominance in males[20] is as expected.

The symptom-complex is so clearly a sequel of coronary thrombosis that when it appears in connection with repeated bouts of angina pectoris some authors suspect a "silent" occlusion.[15] A number of cases have been reported, however, in which the shoulder symptomatology antedated the coronary occlusion or occurred in association with aortic stenosis or paroxysmal auricular fibrillation.[11] A significant number of cases in some series have shown electrocardiographic patterns suggesting ischemia without actual infarction.[20] Therefore, while the syndrome is most commonly observed in association with myocardial infarction, the symptom-complex may also be noted occasionally as a complication of angina pectoris without infarction. The evidence further indicates that the severity of the syndrome is not directly related to the location, extent or severity of the myocardial infarction.[20]

Combination More Frequent

In recent studies, combined shoulder and hand changes were almost three times as frequent as shoulder disability alone and almost twice as frequent as hand involvement unaccompanied by shoulder changes.[20] Although it has been said that the shoulder affected is usually on the side of cardiac ischemic pain, Rosen and Graham[4] observed an equal incidence of left-sided, right-sided and bilateral involvement. Some authors feel that there is no relationship between the transmission of the cardiac pain to the shoulders during the acute attack and the development or location or pain of the shoulder-hand syndrome.[21] No set pattern has been found with regard to recurrence of the syndrome with subsequent attacks of acute coronary occlusion.

Search for Cause

A search for the cause of the shoulder-hand syndrome has provoked a wide variety of hypotheses, none of which is as yet wholly acceptable. Howard[7] regarded the shoulder disability as a "periarthritis" resulting from referred pain with partial immobilization, loss of tone, mechanical maladjustments and secondary inflammatory changes. Libman[8] felt that both shoulder pain and angina pectoris were manifestations of the same metabolic disorders in a person with a "gouty diathesis." Edeiken and Walferth[9] sug-

gested that the symptom-complex might be produced by causalgia resulting from sympathetic nerve fibers being caught in the cardiac scar.

Boas and Levy[11] suggested the radiation of anginal pain to a shoulder already the site of slight disturbance might, by summation, produce the painful disability. They also considered the possibility that some reciprocal relationship might exist between afferent impulses from the heart and sensitization of the neurons whose fibers enter into the brachial plexus.

Oppenheimer[13] believed that the swollen atrophic hand found in association with cervical disk degeneration was the result of direct pressure on nerve roots. In his cases, the syndrome occurred on the same side as the hypertrophic bony changes.

Johnson[16] in discussing shoulder and hand changes following myocardial infarction suggested that the factors responsible for the production of local changes in the hands and fingers were the following: (1) vasoconstriction of the peripheral arteries of the hand resulting from cardiac pain, (2) preexisting arteriosclerotic narrowing of the vessels of the hands, and (3) anoxemia of varying duration and intensity resulting from the myocardial infarction.

Askey[15] looked upon the hand involvement as an extension of the shoulder disability which he attributed to a combination of sympathetic disturbance and arthritis, with varying degrees of preponderance of one or the other. Ernstene and Kinell[14] supported the view that the symptoms arose merely as the result of disuse of the shoulder and abnormal tension of the muscles of the shoulder girdle.

"Internuncial Pool"

Steinbrocker[2] invoked the role of the "internuncial pool," which is a diffuse network of interconnected neurons in the gray matter of the spinal cord, in order to explain the reflex pathway involved. Stimuli can reach this pool by way of sensory nerve roots, sympathetic afferents, or from fibers in the corticospinal tracts.[22] Disturbances in these neurons may spread radially to neurons in the lateral and anterior portions of the cord and exert their influence on these structures by way of locomotor and afferent nerve roots. Spread from this pool of neurons may also account for the bilateral occurrence of the syndrome.

This hypothesis provides an explanation for the spread through several cord segments, with the extent of the spread accounting for the severity and incidence of the vasomotor and musculoskeletal lesions. Steinbrocker,[3] in summing up the present state of knowledge, observed that injury to blood vessels and nerves must be regarded as the exciting cause of the symptoms apart from the contribution of additional factors.

Russek[21, 23] favored the ideas expressed by Steinbrocker, but he recognized that these ideas fail to explain the action of steroids, the lack of correlation of the size of the infarction, and the severity of the symptoms. He felt that we must acknowledge an active participation of the shoulder in the initiation of the syndrome. The referred pain from the heart and the immobility of the shoulder of the patient in bed must combine to produce the changes.

Recently, Moberg[24] presented a suggested pathway for the production of the syndrome based on disturbances in circulation in the hand and arm resulting in impaired flexion in small joints, with shortening of tendons, leading to immobility of the hand. Similar processes were felt to occur in the shoulder.

A Problem in Diagnosis

The patient who presents with varying symptomatology of the shoulder and hand manifestations may present a problem in diagnosis. When the onset is acute in the early stages of shoulder involvement, the local signs of pain, diffuse tenderness and disability are similar to those seen in calcific tendonitis. In this condition, however, exquisite localized tenderness is found over the greater tuberosity and at the subacromial area. The onset of hand changes usually resolves any doubts and completes the evidence of the shoulder-hand syndrome.

Tenderness of the scalenus muscles along with other points of soreness in the neck and shoulder, with weakness of the grip when the hand is swollen, may suggest the scalenus syndrome. Injection of the scalenus anticus muscle with procaine, however, has proved ineffective.

Atypical rheumatoid arthritis may be confused with the shoulder-hand syndrome but persistent homolateral involvement of the shoulder and hand without symptoms in other joints is not observed in rheumatoid arthritis. Furthermore, the usual systemic response noted in rheumatoid arthritis is not seen in this symptom-complex.

Painful, pinkish or pale swelling of the whole hand in the early stages may simulate gout. Normal blood uric acid, unresponsiveness to colchicine and a history of coronary occlusion should suggest that probability of the shoulder-hand syndrome.

Changes in Management

There has been, according to Russek,[21] a decrease in the incidence of the shoulder-hand syndrome following myocardial infarction over the last decade or so, and he feels that the true incidence of the symptom-complex is actually less than 5% in contrast to the 10% to 30% figures quoted earlier. He states that there can be little doubt that the changes in the

management of patients with acute myocardial infarction have been responsible for this reduction. The fact that the patient who now suffers an acute infarction spends less time in bed, is permitted to feed himself, is allowed to move freely in the bed and to perform mild limb exercise at regular frequent intervals as soon after the acute attack as possible, acts as a "prophylactic" measure in preventing the shoulder-hand syndrome. Leichtentritt[25] reported on 93 patients with myocardial infarction in whom inactivity of both shoulders and hands was routinely prohibited. In these cases not a single instance of the disorder was encountered.

Once the syndrome manifests itself, therapeutic treatment should be instituted. Therapy is directed toward relief of symptoms, restoration of function and prevention of residual effects. Many forms of therapy have been employed to achieve these aims. Edeiken[20] reported on 43 patients in which about 95% showed complete or almost complete relief of the shoulder-hand syndrome when receiving nothing more than local heat, analgesics, and exercise of the affected extremity. Most of these responses occurred within eight months after the onset of the disability.

Successful Therapy

ACTH, cortisone, hydrocortisone, and prednisone have been used with success in the therapy of the shoulder-hand syndrome. Russek[23] reported on 17 patients in whom previous treatment with physical therapy, manipulative therapy, or local or stellate blocks proved ineffective. Cortisone produced complete relief of signs and symptoms in five patients, marked improvement in eight, moderate improvement in three, and no significant response in one. The striking feature of this therapy was the dramatic relief of pain often within 24 to 48 hours. Most of the patients were given 200 mg of cortisone orally or intramuscularly in divided doses with diminution to a maintenance dose of 50 mg daily through the third week. No complications or serious side-effects were noted.

Comparative Results

Steinbrocker[26] compared the results of stellate ganglion block with those of cortisone and ACTH therapy in two groups of patients. Practically the same results were obtained with both; however, the authors considered block therapy to be the treatment of choice because of the rarity of contraindication and the lesser likelihood of complications. This belief was based on the assumption that steroid therapy fosters thrombo-embolic phenomena in some patients. However, Russek[21] stated that in observations of 84 patients with advanced cardiovascular disease who received large doses of steroids in no instance did a thrombo-embolic phenomenon occur. He further feels that under proper supervision this treatment with steroid is perfectly harmless and the treatment of choice. Rosen and Graham[4] also considered cortisone or ACTH to be superior to all other forms of treatment. Other authorities[27] have also had success with steroid therapy. Berger[28] recorded favorable response in 18 patients treated by injecting 50 mg of hydrocortisone into tender areas about the shoulder, but this has not been confirmed by Steinbrocker[29] and Russek.[21]

Other forms of therapy such as sympathetic block, sympathectomy[30] and vasodilator drugs[18] have been reported with good results. Regardless of what form of therapy is used, essential to the program is intensive physiotherapy to both the shoulder and the hand, applied as early as possible following the recognition of the syndrome.[4]

In Summary

The shoulder-hand syndrome has been reported to be a sequel to myocardial infarction in some 10% to 30% of all cases. Today these figures seem a little too high, for it is infrequently observed and seldom does it reach an advanced stage. The reduction in its incidence and severity has been attributed to the liberalization of management of patients with myocardial infarction, the increasing use of prophylactic therapy, and new advances in therapeutic measures.

The pathogenesis of the condition remains unclear, although it is generally regarded as a form of reflex sympathetic dystrophy which is both initiated and perpetrated by the myocardial infarction. Evidence further suggests that changes in the shoulder may play a significant role in maintaining this reflex.

Many forms of therapy have been attempted with largely unsatisfactory results. The most favorable responses have been observed from steroid administration and stellate ganglion blocks. Prognosis depends on early recognition and subsequent institution of therapy. Adjunctive measures employing standard exercise and physiotherapy should play an important role if one hopes to achieve maximum results.

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March 21-22—"Rheumatic Diseases," sponsored by the Department of Continuing Education of the Medical College of Georgia, Augusta.

March 24-25—Seminar on Tropical Disease sponsored by the University of Florida College of Medicine, Gainesville, Fla.

April 1-2—Seminar on Management of Arthritis and Rheumatic Diseases, George Washington Hotel, Jacksonville, Fla.

April 3-7—Fortieth Annual Spring Congress in Ophthalmology and Otolaryngology sponsored by the Gill Memorial Eye, Ear, and Throat Hospital, Roanoke, Va.

April 6-7—"Auscultation of the Heart, Phonocardiography and Pulse Tracings," offered by the Institute for Cardiovascular Diseases, Good Samaritan Hospital, Phoenix, Arizona. Program to be held at the Mountain Shadows Resort, Scottsdale.

April 10-22—Course in Laryngology and Bronchoesophagology sponsored by the Department of Otolaryngology of the Illinois Eye and Ear Infirmary and the College of Medicine of the University of Illinois, Medical Center, Chicago.

April 13-14—Obstetrics and Gynecology Seminar sponsored by the University of Florida College of Medicine, Gainesville, Fla.

April 20-21—"The Adrenals in Health and Disease," sponsored by the Department of Continuing Education of the Medical College of Georgia, Augusta.

April 30-May 1-2—113th Annual Session of the Medical Association of Georgia, Marriott Motor Hotel, Atlanta.

May 1-5—A Five Day Refresher Course in Pediatrics for Pediatricians and General Practitioners, sponsored by the Children's Hospital of Philadelphia and the Department of Pediatrics, School of Medicine, University of Pennsylvania, Philadelphia, Pa. AAGP accredited for 27 hours.

National

June 18-22—American Medical Association Annual Convention, Atlantic City, N.J.

May 3—1967 Scientific Session of the American Cancer Society, Sheraton-Dallas Hotel, Dallas, Tex.

June 5-7—A continuation course in "Clinical Electroencephalography," sponsored by the American EEG Society, Philadelphia, Pa.

FAT EMBOLISM FOLLOWING SEVERE TRAUMA IN A CHILD*

Jean M. Cardin, M.D.
John E. Skandalakis, M.D.
Stephen W. Gray, Ph.D., *Atlanta*

■ A case is reported and the few similar cases in the recent literature are discussed.

FAT EMBOLISM often follows gross trauma in adults, but it has rarely been reported in children. We have found only ten cases in the literature of the last 45 years (Table I).

The sequence of events is well known. Fat, mobilized from the bone marrow by fracture, or from other depots by contusion, reaches the lungs, blocking capillaries and escaping into the alveoli. The resulting rise in pulmonary vascular resistance induces tachycardia. If not all fat droplets are retained in the lungs, they enter the systemic circulation to lodge in capillaries of the brain and other organs. Thus, pulmonary and circulatory signs appear first, followed by neurological and finally, systemic signs.

Although a massive shower of fat emboli can produce sudden death from right heart failure, there is usually a latent period of several hours between the trauma and the development of signs. The onset of these signs may be overlooked because attention is focused upon the injury itself, or because they are considered part of post-traumatic shock. Unfortunately, some of the best diagnostic signs (Peltier, 1965) appear late in the course of the disease, and death may occur in children before the signs develop. The following report of fat embolism in a child illustrates some of the diagnostic problems encountered.

Case Report

G.A.D. #292548

On June 17, 1965, a ten-year-old boy was seen one and a half hours after being injured by a freight elevator on which he had been playing. His arm and shoulder were caught in the closing door and the elevator ascended carrying the child upward and wedging him between the elevator and the shaft.

Physical Findings

Multiple lacerations of the head and face, and contusions of the upper extremities, chest and abdomen were observed on admission. He was stuporous but obeyed commands and could move all extremities. Blood pressure was 90/50; the pulse was 140/min. and regular. He was given 300 cc of 6% Destran intravenously, and 0.5 cc tetanus toxoid intramuscularly. A Foley catheter was inserted, a unit of whole blood administered, and the bleeding scalp and facial lacterations were sutured.

After initial emergency therapy, detailed examination revealed conjunctival and scleral hemorrhages. The right pupil was larger than the left, though both pupils reacted well to light. The fundi appeared normal. There was a bloody discharge from the nose, but the ear canals were clear. The lips, tongue and gums were lacerated and contused; several upper and lower front teeth were missing. The abdomen was contused and abraded; peristalsis was absent and There was tenderness on the left side. Deep tendon reflexes were normal.

On auscultation, rhonchi and moist rales were heard anteriorly and posteriorly over both lung fields. Breath sounds were loud and rasping; heart rate had risen to 160/min. Supportive care was started to stabilize the patient's cardiovascular status enough to permit a general anesthetic.

From the Departments of Pediatrics and Surgery, Piedmont Hospital, and the Department of Anatomy, Emory University.

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TABLE I

SUMMARY OF REPORTED CASES OF FAT EMBOLISM IN CHILDREN

Case	Age and Sex	Injury	Signs and Symptoms: Pulmonary	Neurological	Temp. Rise	Tachycardia	Fat Emboli Demonstrated	Apparent Latent Period	Outcome
Nicod 1938	NB M	Soft tissue trauma during intrauterine version.	—	—	—	—	Lungs, myocardium.	Short or none.	Died during delivery.
Morgan 1949	"small boy"	Contusions of thorax.	+	—	—	—	Eye grounds.	Uncertain.	Recovered. Eye grounds cleared in 3 weeks.
Richards 1950	2½ F	Bone fracture during hip reduction under anesthesia.	+	+	?	+	Lungs, spleen, kidney, liver, myocardium.	c. 2½ hrs.	Died c. 15 hrs. after injury.
Alldred (1) 1953	4 M	Fracture of femur, splinted with traction.	0	+	0	+	Urine.	c. 36 hrs.	Recovered after c. 84 hrs.
(2)	6 M	Fracture of ischium.	+	0	+	+	Lungs, kidney.	c. 6 hrs.	Died c. 10 hrs. after admission.
Swank and Dugger 1954	5 M	Ruptured stomach. Contusions with retroperitoneal hemorrhage.	0	+	+	—	Lungs, brain.	c. 6 hrs.	Died 19 hrs. after injury.
Carty 1957	7 F	Fracture of humerus.	+	+	+	+	Lungs, brain.	c. 8 hrs.	Died 27 hrs. after admission.
Present Case	10 M	Fracture of skull, facial bones, pubis, ischium, metacarpals. Contusions.	+	+	—	+	Lungs.	c. 7 hrs.	Died c. 9 hrs. after injury.
Incompletely documented cases:									
Ziemke (1) (cited by Nicod, no ref.)	5 ?	Contusions.	—	—	—	—	?	?	Died.
(2)	2 ?	Contusions.	—	—	—	—	?	?	Died.
Cited by James 1950	8 mo. ?	Bone Surgery.	—	—	—	—	?	?	?

Radiographic Findings

There was a depressed, posterior parietal skull fracture, multiple comminuted fractures of the base of the nasal bone and both macillae, and a depressed fracture of the right superior pubic ramus and the left ischium. Abdominal films showed no free intraperitoneal air. There were impacted transverse fractures of three left metacarpal bones.

Five and one half hours after admission, the patient became restless and was given 100 mg phenobarbital and started on a course of chloramphenicol and penicillin.

An hour later respiration was grunting, strained and more shallow. During preparation for tracheostomy, the patient stopped breathing. Although artificial respiration was given, cardiac arrest occurred 15 minutes later. In spite of external cardiac massage, the child died seven hours and 45 minutes after admission.

Autopsy Findings

All abdominal viscera appeared normal; the lungs were pink and well aerated. The brain appeared normal with no evidence of edema or hemorrhage.

Microscopic sections of lungs stained for fat showed multiple areas of fat embolism in capillaries and large droplets in the alveoli. Figures 1 and 2 show representative areas. No fat emboli were found in sections of heart, kidney or brain.

Diagnosis: Pulmonary fat embolism.

Symptomatology

Of the eleven affected children whose cases are summarized from the literature in Table I, only two are known to have survived; of the remainder, only one lived for more than 24 hours. Signs and symptoms are reported for only seven.

Pulmonary Signs: Moist rales and rhonchi are usually heard early in the course of the disease. Respiratory distress with audible breath sounds may be present; cyanosis may appear intermittently. Pulmonary symptoms are mentioned or implied in all but two cases. In one, the patient recovered (Alldred 1953, Case One).

Circulatory Signs: Fat emboli in the lungs produce a tachycardia without peripheral venous collapse (Peltier, 1965). Where the embolism results from

gross trauma, the circulatory changes accompanying hemorrhage and shock may completely mask those caused by the embolism.

Neurological Signs: Progressive restlessness, disorientation, loss of sphincter control and deepening coma are signs that fat emboli have reached the brain. Convulsions may occur. Vomiting, pallor and sweating are not usual. Neurological symptoms were probably present in five patients in Table I, although emboli were not always demonstrated in the brain. In our case, the neurological signs were probably related to the skull fracture rather than to emboli; no fat was found in the brain.

Two patients with demonstrable neurological symptoms had no pulmonary symptoms. In one case the patient survived (Alldred, 1953, Case One), in the other, fat was demonstrated in the lungs after death (Swank and Dugger, 1954).

Temperature: A rise in temperature occurred in all but one patient, one of the two known survivors (Alldred, 1953, Case One).

Eye Grounds: In one surviving patient, that reported by an ophthalmologist (Morgan, 1949), fat emboli were seen in the retina. They disappeared in the course of three weeks.

Urine: Fat has been found in the urine in about half the reported adult cases (Musselman *et al.*, 1952, Peltier, 1965) and is considered diagnostic. Urine was examined in only two of the children and fat was found in only one (Alldred, 1953, Case One).

Petechiae: These appear on the neck and chest of adults late in the disease. None were observed in any of the reported children.

Serum Lipase: Elevation of serum lipase between the third and fourth day after injury has been considered a diagnostic sign of pulmonary fat embolism (Peltier, 1965). This sign occurs too late to be of value in affected children.

Discussion

Why symptomatic fat embolism follows traumatic injury in some patients and not in others is an unsolved problem. Infants and children seem curiously immune to this particular sequel to trauma.

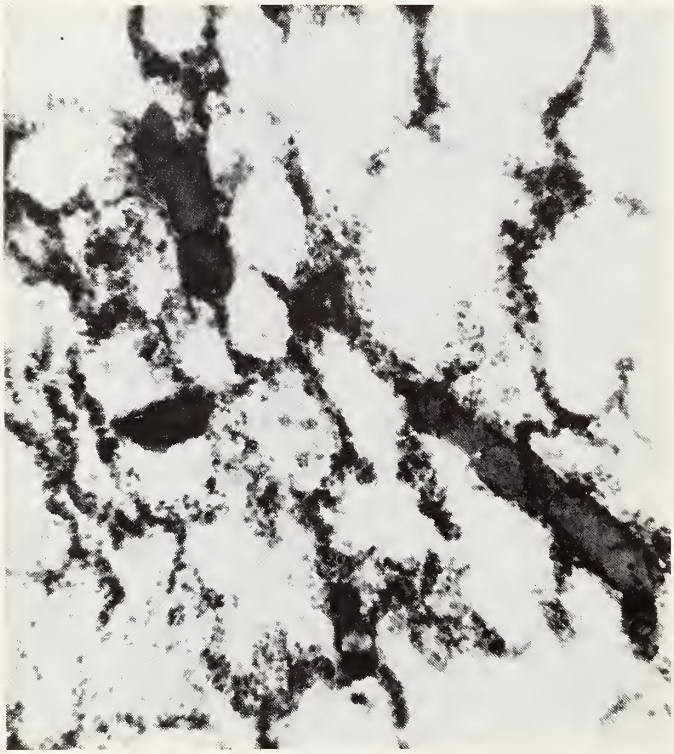

FIGURE 1

Low power field of lung showing capillaries and larger vessels filled with fat. Oil red 0 33 x.

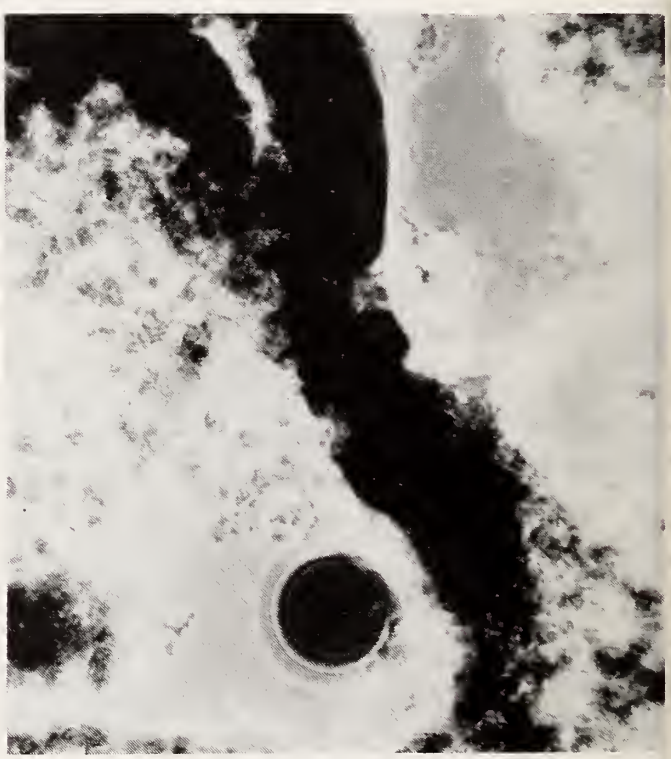

FIGURE 2

Higher power field showing oil droplet in alveolus of lung as well as fat filled capillaries. Oil red 0 83 x.

In adults, symptomatic fat embolism may follow fractures, especially those of the femur, or less frequently, burns or contusions. Among the eleven children in Table I, contusions without fractures were the inciting cause in five. In experimental animals, Swank and Dugger (1954) were able to find a rise in fat content of the lungs and brain after fractures, but not after contusions. How the latter cause fat embolism is still obscure.

Obesity in Only One

Only one of the patients in Table I was described as obese (Carty, 1957). Warren (1946) found no

predisposition toward fat embolism among overweight adult victims of injury. More fat appears in the lungs of "fat" experimental animals subjected to bone fracture than in the lungs of "lean" animals, but there is no difference in the amount of fat appearing in the brain (Swank and Dugger, 1954). It has been stated (James, 1950) that there is more palmitin and stearin and less of the fluid fat olein in children than in adults, and hence children are less susceptible to fat embolism than are adults. This generalization rests on little evidence; the composition of body fat varies with the composition of the diet, and the components of fat emboli have not been determined. It is not impossible that there is an unusual fat composition in affected children, but this must be demonstrated for the individual patient.

Lungs Only Affected

In three-quarters of affected adults the lungs are the only organs affected by fat embolism (Musselman *et al.*, 1952). The ease with which emboli passed from the pulmonary to the systemic circulation in the affected children suggests the possibility of right to left shunts other than the pulmonary capillary bed. In Nicod's (1958) infant, a yet unclosed ductus arteriosus might have provided such a shunt. In older children, a patent foramen ovale or a pulmonary arteriovenous fistula represent possible pathways to the brain for emboli.

From the few reported cases in children, one might conclude that children are rarely affected, but it is possible that they are only rarely affected fatally. The mildness of the symptoms and the rapid recovery of the two children known to have survived suggest that many others have recovered from fat embolism before diagnosis was made. Earlier diagnosis could lead to the recognition of many non-fatal cases.

Treatment of fat embolism remains entirely supportive. In the absence of hemorrhage or traumatic shock the administration of blood or blood substitutes serves only to increase the strain on the right heart already overloaded by the increased pulmonary resistance.

Summary

The eleventh case of fat embolism in a child is reported and previous cases are briefly reviewed. It is suggested that the disease runs its course faster in children than in adults and may be less lethal as well as less readily diagnosed.

(The authors wish to express their thanks to Dr. Rosa Vincenzi for her help in preparing the pathological sections of this case.)

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MEDITATION (A DOCTOR'S WIFE)

Now is a great time to be alive. Discoveries that have taken place in our lifetime are both wonderful and terrifying. The possibilities of what man can do seem unlimited. How we will respond will depend on how much we are willing to give for the sake of the welfare of all.

Seldom Idle

There are things that we must do whether we want to or not. Being forced to work will give us qualities of self control. In all work there is profit. A really happy person is seldom idle. He may spend some time in leisure but he will always be thinking ahead. His life will have direction.

Fortunate is the person who measures values in terms of service rather than benefit to self—fortunate also, one who has the courage to choose the right and willingness to follow it. Much depends on our attitude and how we see things.

Just as our today has been determined by the way we lived yesterday—so our tomorrow is determined by the way we live today. Our character is the sum total of our decisions and these decisions govern the ones we make TODAY for TOMORROW.

Living a successful life is not so much a carrying out of projects as it is mastering daily routine of life. The secret of our being is not only to live but to have something to live for—something to become.

The way to keep life on an even keel is to have an inner certainty. This stabilizing power comes when we are right with ourselves and with God. Only then can we keep a proper balance.

We, in our generation, hold in our hands, the values from the past and the hope of all that is to come.

Mrs. Walter Brown
Savannah, Georgia

MEDICAL CARE FOR THE NEEDY

Mrs Bruce Schaefer,* *Atlanta*

■ The implementation of Title XIX is discussed.

I AM HAPPY to have the opportunity of discussing with you some of the things that we have all been concerned with recently.

You have asked me to talk about Title 19 and the effect it will have upon the practice of medicine in Georgia.

Unfortunately, my crystal ball is suffering from an undiagnosed illness and I cannot give you a guaranteed picture of the future.

About Title XIX

I can, however, tell you something about Title 19, what its implementation means and some of the things that I hope to project for the future.

As you will recall, the public assistance program was born in the depression year of 1937, and known as Public Welfare.

The most urgent need at that time, and the purpose for which the program was established was to help poor people secure food, shelter, and clothing.

It very soon became apparent to many people that the needs of the poor (the people who must depend upon society for their very existence) extend beyond food, shelter, and clothing.

Time brought about the realization that the poor living conditions of so many dependent people grew out of illness or injury.

Medical care for the indigent had been left largely to the individual communities.

Some of those communities provided reasonable medical care to the poor, but in most areas, medical needs of people on public assistance were not met.

Congress evidenced recognition of this fact as early as 1952 when "federal financial participation" in the provision of medical care for the categorically indigent was authorized.

Here I would like to pause for a moment and define categorical indigence in order to help clarify and clear up any possible misconception about Georgia's public assistance program.

Unfortunately, neither state nor federal laws make provision for a program of general assistance or emergency assistance.

This responsibility is left entirely to the individual counties in Georgia and if such a program exists in the county, then it must be funded entirely from local sources.

Few of our 159 counties can afford the total cost, and therefore, few programs of general assistance exist in Georgia.

State and Federal Programs

We have *four* categorical assistance programs in which there is state and federal participation.

These are the programs of:

Old Age Assistance,
Aid to the Blind,
Aid to the Permanently and Totally Disabled, and
Aid to Families with Dependent Children.

In order to be eligible for assistance under either of these four categorical programs of assistance, the applicant must meet certain requirements as set forth in the law and departmental policy.

In the case of Old Age Assistance, the applicant must prove he is past the age of 65.

For Aid to the Blind, the applicant must be certified legally blind through examination by an ophthalmologist.

Eligibility for Aid to the Permanently and Totally Disabled is based on clinical findings of a licensed physician, the family doctor or a specialist of the applicant's choice.

To be eligible for Aid to Families with Dependent Children, the applicant must be a dependent minor who has been deprived of the support of one or both

Speech presented by Mrs. Schaefer to the Fulton County Medical Society, Academy of Medicine, Atlanta, Georgia, August 2, 1966.

* *Mrs. Schaefer is Director of the Georgia State Department of Family and Children Services, Atlanta.*

of his parents because of death, illness, or absence from the home for some other reason.

In the case of parental illness or incapacitation, certification must be by medical examination.

The medical factors of eligibility in these programs are determined by members of the medical profession who work with the Department of Family and Children Services on a fee basis.

After these eligibility requirements for each program have been met, there is the basic requirement that applies equally to all four programs.

The applicant must be without resources of his own and he must be needy according to the agency's "determination of need."

Our caseload of some 92,000 in the program of Old Age Assistance is reasonably static.

Most of those who go off the rolls do so because of death.

This is understandable when you consider the fact that the average age of our Old Age Assistance recipient is 76 years.

Our caseload of blind recipients is very small in Georgia and few of them become self-sustaining.

Contrary to popular belief, we have a rather high rate of turnover in our AFDC program, and many of our APTD recipients become self-supporting.

This is true because of the fact that during the past three and one half years the Department of Family and Children Services has initiated many service programs that work directly toward this end.

Many of our AFDC cases are being defined as problem cases with a plan worked out for each child, and the necessary services are brought to bear, directed toward the rehabilitation of the parents as well.

These services are designed to prevent the dependency of the child when he achieves adulthood.

Reduced Caseload

In order to make service programs more effective, we have reduced the caseload of the workers who deal with problem cases so that they may work intensively with the family and actually help them to bring about their own rehabilitation.

In addition to these service programs, we are realizing some headway with our Title Five projects under the Economic Opportunity Act.

Title Five programs make available to public assistance recipients the necessary job training and work experience to help make them capable of competing for employment on the labor market.

More and better daycare centers are being established where mothers may leave their small children while they work or train for employment.

You will notice that practically all of the things I have mentioned in the area of service programs for prevention and rehabilitation depend directly upon health and physical capacity.

It profits us little to train a father for gainful employment if he is physically unable to work.

Medical services for these people must of necessity form the cornerstone for any workable program of rehabilitation.

High Quality Medical Services

From the beginning of my administration, we have placed great emphasis upon high quality medical services.

It is my feeling and it is my studied opinion that the indigent, the people who live "by the grace of God and public assistance" have a special need in this area because of the deprived and disadvantaged lives they have lived.

Medical care for the aged indigent became much nearer a reality with the passage of the Kerr-Mills legislation in 1960.

As you are all aware, a limited program of medical services in the form of hospitalization and nursing home care was initiated in Georgia in 1962.

This program was limited to aged adult recipients of public assistance, and it was not until last year that we succeeded in including hospitalization benefits for our AFDC recipients.

Provision of Prescription Drugs

The Department of Family and Children Services is in the process of initiating a conservative program of providing prescription drugs by the first of October.

These drugs will be provided to recipients under any of our categorical public assistance programs.

We have, and are grateful for, the able assistance of a committee from the Medical Association of Georgia and the Georgia Pharmaceutical Association in planning the vendor drug program.

In all of our planning for the provision of medical services, and in the initiation and operation of our programs of medical assistance, we have had the help and cooperation of the medical profession.

Title 18—Medicine

There has been much discussion in the news media and everybody has been talking for a long time about Medicare—Title 18 of the Social Security Act Amendments, which became effective July 1, 1966, except for services in extended care facilities, which will be effective January 1, 1967.

Very little has been heard about Title 19.

In order to provide a more effective Kerr-Mills program and to extend its provisions to other needy persons besides the aged, the bill establishes a single

and separate medical care program to replace the differing provisions for the needy which currently are found in five titles of the Social Security Act:

(*Title I,* OAA-MAA; *IV,* AFDC; *X,* Aid to the Blind; *XIV,* APTD; *XVI,* combined Adult Categories)

In other words, this new program often called "Medicaid," is an attempt to liberalize and bring together under one administrative roof a hodge-podge of federal-state sharing programs and formulas that have been providing medical assistance to a variety of needy persons under the five titles I've just named and in addition those—regardless of age, who are "medically indigent."

The Law States . . . .

The law states that Title XIX must be administered by a single state agency and requires that eligibilty be determined by the welfare agency.

The bill specifically provides as a state plan requirement that cooperative agreements be entered into with state agencies providing health services and vocational rehabilitation services looking toward maximum utilization of these services in the provision of medical assistance under the plan.

Last year, Governor Sanders designated the Department of Family and Children Services as the appropriate single state agency to administer Title XIX.

Of Major Significance

Of major significance in the enactment of Title XIX is that it substantially enhances the ability of the state to meet the health needs of a large proportion of our underprivileged population through a uniform and more liberal matching formula with no maximum on the amount of expenditures which are subject to participation.

The federal share, which varies in relation to a state's per capita income is increased over current medical assistance for the aged matching, so that states at the national average receive 55%, rather than 50%, and states at the lowest level receive as much as 83% as contrasted with 80% under several existing formulas.

If additional federal funds are to be paid to states, it must be established that state expenditures have been maintained at the same rate as previously.

The declared goal of the Title by 1975 is to "furnish medical assistance in behalf of families with dependent children, and of aged, blind, or permanently and totally disabled individuals whose resources are insufficient to meet the costs of necessary medical services and secondly, rehabilitation and other services to help such families and individuals attain or retain capability for independence or self-care, and *finally* that states shall progressively broaden the scope, amount and duration of medical care toward a goal of comprehensive service for all medically indigent by 1975.

Realizing that in some states it would not be practicable nor possible from a money standpoint (which is the case with Georgia) to embark on such a broadened program in the immediate future, the Congress enacted Title XIX as an optional program.

Until 1970

States have until 1970 to join the program covering at least those groups now receiving medical assistance, otherwise, they face the loss of all federal financial participation for medical assistance.

The medical assistance provisions of Titles I, IV, X, XIV and XVI remain, until that time, in full force and effect for those states like ourselves unable to immediately implement XIX.

We in the Department are trying to precede development of a Title XIX program by the careful formulation of an overall long range plan toward the 1975 goals and the progressive steps to attain these goals.

Our states programs must provide five basic benefits by July 1, 1967—namely, hospital care, nursing home care for adults—both of which we have, outpatient hospital care, doctors services (which we unsuccessfully made an effort to provide); and laboratory and x-ray services.

The states themselves can broaden and include other services as they desire. As an example—our vendor-drug program.

(Minnesota for instance provides "whatever the doctor orders." Illinois adds dental care, eyeglasses and physical rehabilitation services.)

Write Own Plan

Title XIX provides that each state write its own plan—establish its own definition of "medically indigent" and, as a rare exception, it does not confer standard setting authority on HEW, but there is clear congressional intent that the standards set by the states be the kind that actually give assurance of proper and efficient administration and high quality of care.

The nine states with "medicaid" programs implemented so far—California, Hawaii, Illinois, Minnesota, North Dakota, Ohio, Oklahoma, Pennsylvania and Puerto Rico, have had various definitions of who is medically indigent which have not been unduly broad.

In Illinois a family of four with an annual income of $3,600 is considered to have enough to meet everyday living costs, but not enough to meet medical bills.

In other states the levels for a family of four range from a low of $2,448 in Oklahoma to $4,000 in Pennsylvania.

Inherent Damages

New York has just recently submitted a plan apparently showing how generous a state can make its Title XIX—A net income of $6,000 with limited insurance, bank balance, etc.

The state's physicians and dentists are active to alert the public, Congress and HEW to the dangers inherent if New York's plan should receive federal approval.

Frequent reference is made to the need for simplification of administration in all phases of the program—eligibility requirements, application process, investigation and determination of eligibility, availability and accessibility of service to the recipient and the process of making prompt payment for services rendered.

We hope to devise basic records, forms and procedures adaptable to our health care programs, thus assuring a minimum of inconvenience to providers of service with optimum use for research and evaluation purposes.

Considerations Overlooked

In public medical care programs a few basic considerations often are overlooked.

Most poor have suffered health neglect long before they became poor enough for money payments or medical service benefits.

They come from cultural and economic strata where sophistication in health matters is the exception rather than the rule.

A program which sets up a smorgasbord of services will not, in itself, contribute to health improvement for this group.

We must make every effort and staff must be trained to create an awareness among recipients as to what services are available and where and to encourage and assist recipients to have personal or family physicians.

We must help people to recognize symptoms of ill health in themselves and their families and to seek professional care when needed, and to encourage mothers to obtain pre-natal and post-natal services, and most importantly, such family-planning services as they can in conscience accept.

People must have housing, diet and non-medical services as are needed to live with their illness or to minimize their handicap.

During the just ended fiscal year, the Department of Family and Children Services expended $16,243,-214.09 for hospitalization and nursing home care, and we are about to launch the vendor-drug program for all public assistance recipients—80% of the funds for these services comes from the federal government.

In the initiation of Title 19, Georgia will require a substantial increase in the state appropriation to meet the federal-state matching formula due to:

(1) the required expansion in scope of medical services,

(2) the required addition of the medically indigent, and

(3) the staffing requirements involved in extending certain prescribed social services to all eligible recipients under the plan.

Statement From HEW

The Federal Department of Health, Education, and Welfare in a release to all states stated, that with the requirements under the new program for substantial upgrading in scope of services, both medical and social, for a state to try to undertake the new program without adequate professional and financial resources could mean frustration in efforts to meet the plan requirements and corruption of the intent of Congress in enacting such progressive legislation.

In assessing the element of adequate professional resources, the Department is faced with a highly complex administrative factor.

Rigid Requirements

I have reference to the requirement of certain prescribed social services which must be initiated state-wide on a progressive basis within a two-year period.

The present welfare laws passed in 1937 provide for county administered-state supervised programs.

The rigid staffing formula for professional social workers as required under Title 19 would represent an almost insurmountable problem in administration of the program in 159 county departments of family and children services.

The Department is faced with a similar administrative problem in attempting to make realistic plans to initiate "public assistance amendments of 1965" providing for payment of assistance to adult categorical individuals in institutions for mental diseases, (which we have not been permitted to do previously).

In order to obtain federal matching of these assistance payments, the Department must provide specialized social services on a state-wide basis to the

potential mental health patient, and plan alternate living arrangements and care for the person released from a mental institution.

Reorganization of Department

My staff and I have given a great deal of time, thought, and consideration to the desirability of moving into the new programs with as little delay as possible in order to meet the 1970 deadline, and we have come to the conclusion that federal requirements cannot be adequately met without a reorganization of the Department, in other words, a state administered program of welfare.

I therefore plan to recommend that the 1967 General Assembly give authority for a study and a committee to consider a reorganization of the Department to provide for state administered, and federal-state financed welfare programs, and, a time schedule for implementation of Title 19 on a progressive basis.

All these new programs, viewed in their entirety are certainly not perfect and definitely not simple.

But perfection is for the future, and simplicity is not a sole virtue in a democracy; the complexities have a definite purpose for the good of the people we serve.

Public law 89-97, enacted virtually on the 30th anniversary of the original Social Security Act, marks an unforgetable milestone in government's discharge of its responsibility for the people, particularly the poor.

But it will take effective teamwork of all Governments—Federal, State and Local—with the medical and health professions and our voluntary institutions, to make the benefits made available by law, a tangible and meaningful reality.

HIGHLIGHTS OF THE ACTIONS OF MAG EXECUTIVE COMMITTEE MEETING JANUARY 22, 1967

This summary is being published so that the MAG membership may be advised in brief of the actions of the Association's Council and Executive Committee. It covers only major actions and is not intended as a detailed report. Full minutes of these meetings are available upon any member's request to the MAG Headquarters Office.

Auto Traffic Safety legislation to accomplish the following was approved in principle: (1) Use of radar by cities without State Troopers; (2) Driver education in public schools; (3) Reflectorized license plates; (4) Examination for renewal of drivers license on periodic basis for vision and practical driving ability; (5) Implied consent to submit to alcohol test and lowering of alcohol level in blood. Final approval of the bills to be offered was reserved until the bills are introduced, received and read by the Legislative Committee.

Drug Vendor Program of the Department of Family and Children Services was reviewed in light of objections previously raised by MAG. A letter from the Department in answer to the MAG objections was read and referred back to the Drug Vendor Study Committee for evaluation and report to March Council meeting.

MAG Annual Leadership Conference for County Society Officers, scheduled for February 4-5, 1967, Riviera Hotel was discussed. Suggestions to improve the "pre-registration" of participants were made. *Make Every Effort to Have Your County Medical Society Represented.*

MAG Foundation for Education and Research was discussed and changes in the Constitution were tentatively approved. The matter is now approaching its final form and will be mailed to Executive Committee members prior to the February meeting for approval.

MAG Committee Duty Pamphlet outlining the function and duties of each Committee was discussed. The Secretary was instructed to research similar type pamphlets prepared by medical and lay organizations and report his findings to March Executive Committee.

Board of Health Appointment of Dr. Lamar Peacock, Atlanta, to fill the Fifth District vacancy was announced and received for information.

Emergency Medical Services Conference to be held on April 6-7, 1967, in Chicago will be attended by Dr. Fleming Jolley as a representative of MAG.

Many overweight patients can benefit from the appetite control provided by the sustained anorexigenic-tranquilizing action of BAMADEX SEQUELS: anorexigenic action of amphetamine; tranquilizing action of meprobamate; prolonged action through sustained release of active ingredients.

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DEXTRO-AMPHETAMINE SULFATE (15 mg.) SUSTAINED RELEASE CAPSULES
WITH MEPROBAMATE (300 mg.)

to help establish a new dietary pattern

Contraindications: Dextro-amphetamine sulfate: in hyperexcitability and in agitated prepsychotic states. Previous allergic or idiosyncratic reactions to meprobamate.
Precautions: Use with caution in patients hypersensitive to sympathomimetic compounds, who have coronary or cardiovascular disease, or are severely hypertensive.
Dextro-amphetamine sulfate: Excessive use by unstable individuals may result in psychological dependence.
Meprobamate: Careful supervision of dose and amounts prescribed is advised, especially for patients with known propensity for taking excessive quantities of drugs. Excessive and prolonged use in susceptible persons, e.g. alcoholics, former addicts, and other severe psychoneurotics, has been reported to result in dependence on the drug. Where excessive dosage has continued for weeks or months, reduce dosage gradually. Sudden withdrawal may precipitate recurrence of preexisting symptoms such as anxiety, anorexia, or insomnia; or withdrawal reactions such as vomiting, ataxia, tremors, muscle twitching and, rarely, epileptiform seizures. Should meprobamate cause drowsiness or visual disturbances, reduce dosage and avoid operation of motor vehicles, machinery or other activity requiring alertness. Effects of excessive alcohol consumption may be increased by meprobamate. Appropriate caution is recommended with patients prone to excessive drinking. In patients prone to both petit and grand mal epilepsy meprobamate may precipitate grand mal attacks. Prescribe cautiously and in small quantities to patients with suicidal tendencies.
Side Effects: Overstimulation of the central nervous system, jitteriness and insomnia or drowsiness.
Dextro-amphetamine sulfate: Insomnia, excitability, and increased motor activity are common and ordinarily mild side effects. Confusion, anxiety, aggressiveness, increased libido, and hallucinations have also been observed, especially in mentally ill patients. Rebound fatigue and depression may follow central stimulation. Other effects may include dry mouth, anorexia, nausea, vomiting, diarrhea, and increased cardiovascular reactivity.
Meprobamate: Drowsiness may occur and can be associated with ataxia; the symptom can usually be controlled by decreasing the dose, or by concomitant administration of central stimulants. Allergic or idiosyncratic reactions: maculapapular rash, acute nonthrombocytopenic purpura with petechiae, ecchymoses, peripheral edema and fever, transient leukopenia. A case of fatal bullous dermatitis, following administration of meprobamate and prednisolone, has been reported. Hypersensitivity has produced fever, fainting spells, angioneurotic edema, bronchial spasms, hypotensive crises (1 fatal case), anuria, stomatitis, proctitis (1 case), anaphylaxis, agranulocytosis and thrombocytopenic purpura, and a fatal instance of aplastic anemia, but only when other drugs known to elicit these conditions were given concomitantly. Fast EEG activity, usually after excessive dosage. Impairment of visual accommodation. Massive overdosage may produce drowsiness lethargy, stupor, ataxia, coma, shock, vasomotor and respiratory collapse.

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695-6

SIGNIFICANCE OF A LOW-TITRE V.D.R.L.

David G. McLone, M.D., *Atlanta*

■ **This often misunderstood situation is discussed and clarified.**

THE CORRECT INTERPRETATION of a serologic test for syphilis is a common and important task which confronts many physicians, regardless of their specialty. Twenty-two thousand, seven hundred and ninety reactive serologic tests for syphilis were reported in the state last year. The majority of these reactors were from patients without clinical manifestations of active syphilis, and thus, many questions arose regarding the correct procedure to follow after the initial S.T.S. was reported.

Specificity Not Absolute

Because the V.D.R.L. is a nontreponemal antigen test, its specificity is not absolute. However, recent reports indicate that fewer than 3%[1] of reactive serologic tests are biologic false positives (B.F.P.) and that approximately 50%[2] of the tests that are interred in "the great diagnostic waste basket" of B.F.P.'s are, in fact, syphilis. Therefore, a physician is obligated in the face of a reactive V.D.R.L. to *definitely establish* or *definitely rule out* a diagnosis of syphilis. The attitude that "nice people do not get syphilis" is not a criterion for disregarding the V.D.R.L.

The vast majority of B.F.P.'s will have a low titre, but the fact that a patient does indeed have a low titre V.D.R.L. requires further diagnostic investigation. Such entities as recent immunizations or febrile illness can cause an acute B.F.P., but this will return to normal within a few weeks or months. Autoimmune disease shows a high incidence of B.F.P.'s and the fate of this group may be worse than that of untreated syphilis. Pregnancy, per se, as a cause of a B.F.P. has not been established, and to make the diagnosis of B.F.P., risking a congenitally infected infant, is difficult to justify. The physician should never assume that a low titre V.D.R.L. with no clinical evidence of syphilis is a B.F.P., nor should he assume that it is a definite basis for the diagnosis of syphilis. Obviously dark field positive primary lesions in the face of negative serologic tests are syphilis.

The initial approach to a reactive V.D.R.L., of any titre, is to repeat the test, thus ruling out a technical or clerical false positive. The next step is a good history. Ask about previous tests, not just in the recent past but include marriage, pregnancy, employment, military service, hospitalization, blood donations, etc., and most certainly a history of early syphilis lesions. Inquire about still births, "bad blood," hip shots, rapid treatment centers, infected sex partners, or previous penicillin injections. Proper histories require tact, persistence and ingenuity, but because an injection of penicillin may have fatal outcome, they are necessary.

If the repeat V.D.R.L. is positive, the clinical picture remains negative, and the history unrewarding, the physician must resort to one of the treponemal tests which are more sensitive and specific. The two most widely recommended are the Treponema Pallidum Immobilization (T.P.I.) test and the Fluorescent Treponemal Antibody Absorption (FTA-ABS) test. A positive result from either of these tests indicates syphilis with a high degree of accuracy.

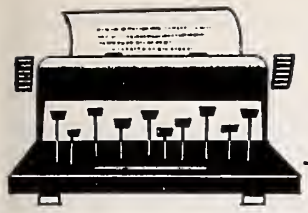
Both the T.P.I. and FTA-ABS tests are available through the *Georgia Department of Public Health.* A special serologic collection kit for submitting specimens may be obtained from the *Venereal Disease Control Section, 47 Trinity Ave., S.W., Atlanta,* or by calling *MU 8-4033, Ext. 325.* This section maintains complete information files on individuals who have been previously treated or who are known to have chronic B.F.P.'s and is more than willing to assist physicians in any possible way. Questions regarding the management of syphilis are answered in the Public Health Service Publication, *Syphilis—Modern Diagnosis & Management.* This 62 page book has been distributed to many physicians in the state and copies are available through the V.D. Control Section.

The diagnosis of active syphilis, and the decision to treat must be based on the complete clinical picture, which includes history, physical, and laboratory findings.

Venereal Disease Clinic
Fulton County Health Department

[1] *Moore, Brittian M., Jr., M.D., and Knox, John M., M.D., Southern Medical Bulletin, June 1965.*

[2] *Beerman, Herman, M.D., and Nicholas, Lealie, M.D., American Journal of the Medical Science, May 1965.*



EDITORIALS

Study Grant Awarded to Combat Heart Disease, Cancer and Stroke

A GRANT in the amount of $240,098 for the first year of a two-and-a-half year period has been made to the Georgia Region to supply planning activities for the development of a Regional Medical Program to improve the level of diagnosis and treatment of heart disease, cancer, stroke and related diseases.

Headquartered at Atlanta

Headquartered at the Medical Association of Georgia in Atlanta, the program will be coordinated by Dr. J. W. Chambers of LaGrange in cooperation with a Regional Advisory Group which is broadly representative of the health resources of the state. The program will be conducted in conjunction with Emory University School of Medicine, the Medical College of Georgia and other community agencies.

The Division of Regional Medical Programs of the National Institutes of Health has awarded the grant to the Medical Association of Georgia as the coordinating agency for this Regional Medical Program enacted by the 89th Congress. The Program is based on planning to utilize the joint activity of the health care organizations and agencies in Georgia; to institute new cooperative educational activities for the 170 general hospitals in Georgia; and to develop special training programs for health care personnel. During this study period, local physicians and allied health personnel will be asked to survey their hospital facility needs. The objective of this over-all plan is to devise ways and means to provide improved health care in the fields of heart disease, cancer, stroke and related diseases.

Some 19 health organizations and agencies, including representatives of the general public, constitute the Advisory Group to lead this program in Georgia. Dr. Walter E. Brown, Savannah, President of the Medical Association of Georgia; Dr. Arthur P. Richardson, Atlanta, Dean, Emory University School of Medicine; and Dr. Harry B. O'Rear, Augusta, President, Medical College of Georgia, are the co-chairmen of the Advisory Group.

The federal grant funds cover a period up to two and one-half years during which time the planning of this program will be conducted by a staff of professional persons. As plans are completed, operational grants for specific projects will be requested to further activate the program in Georgia.

In making this award Dr. Robert Q. Marston, Associate Director, National Institutes of Health and Director of the Division of Regional Medical Programs said, "We are delighted to acknowledge the grant award to the Georgia Region. It marks another significant step toward one of the first goals of the legislation which established the Regional Programs, and brings this large and important Region into the total effort to provide the entire country and all of its people with the opportunity to participate in the potential benefits inherent in the goals of the program."

The Treatment Gap

TREATMENT PROGRAMS for the alcoholic have for a long time been relegated to the status of the red-haired stepchild in our family of health services. The problem was there; no one denied it, but it seemed so homely and unpromising that few wanted to become involved. Over the past few years, however, the stepchild has become too big to be ignored. Officially fourth in the ranks of public health problems, alcoholism's inevitable involvement of whole families in prolonged and multiplying pathologies, leaves it second to none in the production of sheer human misery.

Georgia has responded to the challenge along two major lines: education and rehabilitation. In the first instance, our continuing educational efforts have introduced most knowledgeable people, certainly most

professionals, to the concept of alcohol addiction as an illness rather than a problem of morality or will power. Secondly, the first rehabilitation centers and several clinics have been established. They offer programs of continuing therapy for the years of rehabilitation. Such rehabilitation programs function full time in Atlanta, Savannah and Columbus, with part-time clinics being established in Griffin, Rome, Dalton, Athens and Statesboro.

No Detoxification Facilities

These programs of education and rehabilitation are movements in the right direction, deserving encouragement and expansion. But these efforts are being crippled by a tragic gap set squarely between the patient and more definitive therapy. This treatment gap is the virtual nonexistence of detoxification facilities. As a result, the individual alcoholic suffering through the acute phase of withdrawal finds himself in an excruciating dilemma. From one side, he feels the pressure of an increasingly enlightened community, urging him to seek help. On the other side, he faces the invitation of the various clinics, public and private, to come and involve himself in a long-term program of rehabilitation. *But the rehabilitation programs require that he be sober. And the fact is, he's not sober. He's drunk. He's poisoned, acutely physically ill, and quite possibly staving off D.T.'s and convulsions one drink at a time.*

In the very real urgency of the suffering alcoholic, coming off his last worst drunk, is the plea, "For God's sake, help me. I'm sick."

In the framework of existing facilities the usual reply of the helping professions is, "Get sober, *then* we'll help you."

In what other illness do we ask the patient to cure himself of the acute phase before seeking treatment for the chronic phase? What, in fact, does this demonstrate about our *real* acceptance of the concept of alcoholism as a legitimate, medically approachable illness?

The Missing Link

In order to bridge this gap between theory and practice, and in order to help the alcoholic from his serious, immediate medical needs to the various rehabilitation programs, we must provide readily available detoxification services. In meeting the urgent and often critical physical needs of the patient, these specialized, short-term medical units would provide the missing link in our efforts to save the alcoholic's life and return him to productive living.

Quite obviously, the establishment of such detoxification centers will be neither inexpensive nor simple. But the alternatives are stark. Without such medical facilities, the alcoholic is reduced to the following possibilities:

(1) The alcoholic can treat himself with additional dosages of alcohol, seriously complicating his physical condition, until a crisis intervenes. And these crises are not infrequently D.T.'s, brain damage, suicide, or death from alcohol poisoning.

(2) The alcoholic may be committed to an overcrowded state hospital which is ill-equipped to handle his emergency medical needs.

(3) The alcoholic may receive a "drying out" sentence in a local jail which is totally unequipped to meet his medical needs.

(4) The alcoholic may be admitted to a general hospital under a false or secondary diagnosis.

This last alternative, hospitalization under an inaccurate diagnosis, brings into focus the rather cruel joke of hospital policy toward the alcoholic. If the alcoholic and his physician are honest, he will not be admitted. If the alcoholic comes in under false pretenses, his treatment is complicated by the fact that his basic illness may not be fully understood. His sick thinking may, in fact, be reinforced as he is handed a label like "gastritis" with which to prop up the denial of his real problem. In addition, because the staffing and facilities of a general hospital are not designed to handle his particular needs, such an admission may contribute to the reputation of the alcoholic as an impossibly difficult patient.

The Simple Fact

The simple fact is that the general hospital is not presently prepared to handle the alcoholic. Its staff, although well-trained professionals in their respective fields, have not been taught the techniques of the medical management of the acutely ill alcoholic. Nor is it reasonable to expect all general hospital personnel to undertake such specialized training. The answer lies in developing specifically designed units within the total hospital context. These units, modeled along the lines of existing post-operative and intensive care services, could provide the professionally tailored setting and staff for the optimum care of acute alcoholism.

Such detoxification units would present no greater expense or difficulty than the other specialized, life-saving services (in terms of equipment, at least, the cost of a detoxification unit might prove much less expensive). As a first step, pilot projects could be established to demonstrate the value of such units. Then, out of the pilot projects, training programs could be developed to train personnel to staff similar units in population centers across the state.

The successful functioning of such detoxification centers will constitute a major break-through in the treatment of acute alcoholism. Not only will these cen-

ters provide needed treatment, they will also destroy the old prejudice against the practicability of hospital treatment for the alcoholic. Physicians, nurses, administrators and others will be able to see what pioneers in the field have already demonstrated: that specially trained medical personnel *can* reasonably and adequately provide care and treatment for acute alcoholism within the general hospital setting.

And if the pressure of human need does not prompt us to immediate action in bridging the treatment gap, the courts of the land will shortly bring their own pressure to bear. The recent court rulings in the cases of Driver* and Easter† have made it plain that we can no longer use our jails as convenient drying out spots. Drunkenness is no longer punishable as a criminal offense. The result of these rulings can be seen in the case of Washington, D.C. As a result of the ruling in the Easter case, Washington found itself faced overnight with nearly 3,000 homeless alcoholics—and no facilities to handle them.

The handwriting is on the wall for Georgia. At any time now we may wake up to discover that the treatment of the alcoholic is no longer an option but a legally enforced necessity. Without the immediate establishment of adequate detoxification centers, the personal tragedy of the medically untreated alcoholic may very well turn into public bedlam.

Other areas have set us good examples. St. Louis can take credit for the nation's first detoxification center for persons arrested on charges of chronic public intoxication. The St. Louis facility provides 30 beds for men and women with treatment ranging in duration from two to seven days. In November of 1966, New York City opened a 50 bed detoxification center for male alcoholics in the Bowery area. The New York program is voluntary and the treatment period is three to four days.

Why have we, along with many others, neglected to provide readily available medical treatment for the alcoholic? Are we still running from the old emotions and prejudices connected with alcoholism? Do we really believe that alcoholism is an illness in which the addicted victim can no more treat himself than can a diabetic in acidosis? Are we still wed to the continuing misconception that the alcoholic's problems are too complicated, his attitude too uncooperative for treatment in general medical facilities?

For Georgians the question is not *whether we shall act, but when and how*. Shall we respond to the pressing human need, providing the alcoholic the same medical care we offer other medical emergencies? Or, shall we wait until the new legal status of the alcoholic forces us into hurried and makeshift arrangements? These are our choices in the opening weeks of 1967.

Vernelle Fox, M.D.
Sally Mellen, R.N.
David H. Moylan, Th.M.
The Georgian Clinic
1260 Briarcliff Road, N.E.
Atlanta, Georgia 30308

* *Driver vs. Hinnant, U.S. Court of Appeals for the Fourth Circuit, 1966.*

† *The DeWitt Easter case was presented in the U.S. Court of Appeals in the District of Columbia, 1966.*

BOOKLET TO HELP ERADICATE TUBERCULOSIS AVAILABLE FROM MAJOR DRUG HOUSE

A new booklet, designed to stimulate active participation in the effort to eradicate tuberculosis, is currently receiving widespread distribution throughout the United States.

Produced by Lederle Laboratories, division of American Cyanamid Company, the 20-page booklet is entitled "A Gift to the Future."

A Working Plan

The publication offers "a working plan to help eradicate tuberculosis" and highlights the importance of tuberculin testing of all school children. A special appendix provides information on school tuberculosis testing programs in the 50 states. The booklet also gives background information concerning the disease itself and facts about the overall nationwide program for its eradication.

"A Gift to the Future" is being made available to state health officers, medical societies, members of Congress, the national headquarters of various civic organizations and state and local tuberculosis associations. Additional distribution of the publication will be made available to school administrators and parent-teacher organizations.

The booklet was prepared by the Physicians Community Service at Lederle Laboratories, Pearl River, New York. Single copies are available upon request.

ATLANTA EASTER SEAL CENTER CERTIFIED FOR MEDICARE PATIENTS

The Georgia Society for Crippled Children and Adults announces that its facility, the Atlanta Easter Seal Rehabilitation Center, is certified for Medicare patients from Fulton, DeKalb, Cobb, Gwinnett, Clayton, Newton, Barrow, Walton, Rockdale, Douglas, and Paulding counties. Services available include physical, occupational, speech-hearing therapy, and medical social service.

The Society also announces that the Southwest Georgia Easter Seal Rehabilitation Center therapy services are available for Medicare patients by agreement with State Public Health District No. 20 serving Dougherty, Baker, Lee, and Worth counties.

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LAKESIDE

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It is an anticholinergic drug without narcotic properties. Side effects are usually mild.

IN BRIEF: One or two tablets three times a day and one or two at bedtime usually provide prompt relief. Cantil with Phenobarbital may be prescribed if sedation is required.

Dryness of the mouth, blurring of vision, constipation, nausea, vomiting, bloating and dizziness may occur but are usually mild and transitory. Urinary retention is rare. Caution should be observed in prostatic hypertrophy — withhold in glaucoma. Contraindicated in patients sensitive to phenobarbital and/or Cantil (mepenzolate bromide); in toxic megacolon, obstruction of G. I. or G. U. tract.

SUPPLIED: CANTIL (mepenzolate bromide) — 25 mg. per scored tablet. Bottles of 100 and 250. CANTIL with PHENOBARBITAL — containing in each scored tablet 16 mg. phenobarbital (warning: may be habit forming) and 25 mg. mepenzolate bromide. Bottles of 100 and 250.

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PRESIDENT'S LETTER

WITH THE ADVENT OF THE NEW YEAR

As I write this note the Christmas Season has come and gone with all its festivities, celebrations, happy gatherings and reunions of families and friends. It is our sincere hope that it has been an occasion unmarred by misfortune, illness or sorrow among our members. Also, that we may look ahead to another year in which our country may have been able to bring to a satisfactory culmination the sad and tragic war in Viet Nam and so have returned to us our loved ones and many friends involved in this conflict. May it be our hope that peace may prevail throughout the world and that men of all nations may again live together without turmoil, bitterness and actual resort to warfare to settle their differences. This would indeed be a great stride forward in the life of our community of nations and a condition which we may all well strive to achieve.

New Developments and Concepts

In our professional life and activities we also must look ahead to new developments and concepts of medical advances, some of which at this time may not as yet have been foreseen or indeed have been considered. We constantly have before us new procedures in all fields of medicine; in surgery, in medical advances, in technical improvements in operative equipment and technic; laboratory and radiological research and paramedical activities, all aimed at ultimate use in offering the best in all areas for better care and treatment of all who come to us in faith and confidence that they will receive the best to be offered in the entire world.

With the advent of the New Year will come new provisions under the medicare program. Mainly the provision for nursing home care for extended illnesses. There are some misconceptions concerning activation of this program.

It is not designed for custodial care or to provide for the old who merely need a place to live. It expressly provides extended care for those who are actively ill, who may be dismissed from a hospital, but are still too ill to be sent home and who need continued medical care and treatment.

Inadequate Facilities

At this time the number of nursing homes approved for medicare patients are a very small percentage of existing facilities, and it is generally considered that these beds are totally inadequate in number to accommodate the expected requirements. Also, at this time the occupancy rate is approximately 90%.

Many nursing home officials are not making application for approval for medicare patients, as they state that under present provisions they cannot make a profit or operate successfully. One instance is in Massachusetts where only 89 of 685 nursing homes have been approved. Similar conditions exist throughout the country. Many are not being approved due to inability to conform to physical standards of buildings, equipment, etc.

We have received notice that the application for the planning grant for Heart, Cancer and Stroke has been approved in Washington. The amount for the first one and one half years is approximately $240,000, with few changes, deletions or alterations. The steering committee and advisory group will begin early meetings for setting up ways and means of providing improved health care in these fields.

Walter Brown

Walter E. Brown, M.D.
President, Medical Association of Georgia

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IN BRIEF:

INDICATIONS: In depression of any kind —neurotic and psychotic depressive reactions; manic-depressive or involutional psychotic reactions.

CONTRAINDICATIONS: Glaucoma, urethral or ureteral spasm, recent myocardial infarction, severe coronary heart disease, epilepsy. Should not be given within two weeks of treatment with a monoamine oxidase inhibitor.

RELATIVE CONTRAINDICATIONS: (1) Patients with a history of paroxysmal tachycardia. (2) Patients receiving concomitant therapy with thyroid, anticholinergics or sympathomimetics may experience potentiation of effects of these drugs. (3) Safety in pregnancy has not been established.

PRECAUTIONS: (1) Outpatient use of desipramine hydrochloride should not be substituted for hospitalization when risk of suicide or homicide is considered grave. (2) If serious adverse effects occur, reduce dosage or alter treatment. (3) In patients with manic-depressive illness a hypomanic state may be induced. (4) Discontinue drug as soon as possible prior to elective surgery.

ADVERSE EFFECTS: Side effects, usually mild, may include: dry mouth, constipation, dizziness, palpitation, delayed urination, "bad taste," sensory illusion, tinnitus, anxiety, agitation and stimulation, insomnia, sweating, drowsiness, headache, orthostatic hypotension, flushing, nausea, cramps, weakness, blurred vision and mydriasis, rash, tremor, allergy, agranulocytosis, altered liver function, ataxia, and extrapyramidal signs.

DOSAGE: Optimal results are obtained at a dosage of 50 mg., t.i.d. (150 mg./day). **SUPPLIED:** NORPRAMIN (desipramine hydrochloride) tablets of 25 mg.; bottles of 50, 500 and 1000; and tablets of 50 mg., in bottles of 30, 250 and 1000.

LAKESIDE

LAKESIDE LABORATORIES, INC., Milwaukee, Wisconsin 53201

LIBERMAN RESEARCH PROJECT

A. H. Letton, M.D., *Atlanta*

NINETY PER CENT OF AMERICANS are going to follow the advice and example of their physicians—a new study reported recently by the American Cancer Society indicates.

This is particularly true of the "annual Cancer Detection Examination." Most people would have the annual checkup if advised by their doctor, and the American Cancer Society points to this act as the single most important step in helping to save at least half of the 9,500 who develop new cancer in Georgia each year.

At present, only about half of those in the study reported having a checkup that was thorough enough to detect cancer if it was present.

Physician as Key

In another section of the report, the physician was viewed as the key to saving more lives from cancer in another way—cigarette smoking and lung cancer.

Cigarette smoking has been reported connected to as much as 75% of all lung cancer, which at present is causing more cancer deaths than any other form in Georgia.

The Society estimates today that less than 30% of doctors smoke cigarettes—half the number who smoked ten years ago. According to the summary, what the physician does himself and what he tells patients to do will determine what Americans generally do about cigarette smoking in the years ahead.

"With doctors as our articulate conscience, the important exemplars can be mobilized: teachers, Congressmen, stars of television and movies, athletes, businessmen, and let's not forget every parent who has a child," the report stated.

Statistics on the annual checkup in the report, done by Liberman Research, Inc., New York City, showed 57% of those questioned had never had a checkup that included tests for cancer; 26% have examinations regularly; and 17% have had an examination at one time or the other.

Among the "goers and non-goers," nine out of ten said they would have the checkup recommended if their doctor told them it was advisable.

Cancer cures—five-year survival without recurrence—are due principally to one thing today, the urgency of treatment—the promptness with which the cancer patient responds to pleas for early detection, to early diagnosis, to early attention to the cancer that can be cured, but kills if neglected.

American Cancer Society spokesmen feel that an effective way of changing attitudes about annual checkups is to demonstrate to patients that the family physician welcomes his complaint, however trivial, and endorses the annual checkup as the best defense against cancer.

340 Boulevard, N.E.

Approved by the Professional Education Committee, Georgia Division, ACS.

CALL FOR SCIENTIFIC EXHIBITS

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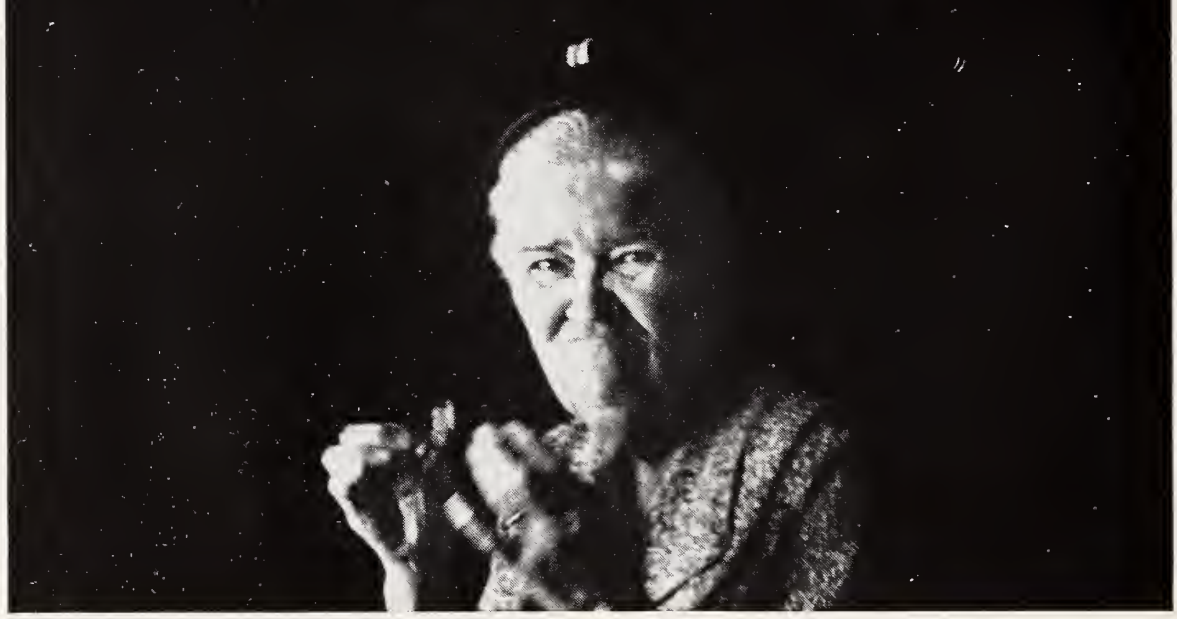
Atlanta, Georgia, April 30-May 1-2, 1967

For Information and Applications, Write to:
John McClure, Jr., M.D., Chairman, MAG Scientific Exhibits Committee
938 Peachtree Street, N.E. • Atlanta, Georgia 30309

IRON DEFICIENCY

ANEMIA



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There's as much iron . . . 250 mg. . . . in a 5 cc. ampul of Imferon (iron dextran injection) as in a pint of whole blood. When iron deficient patients are intolerant of oral iron . . . or orally administered iron proves ineffective or impractical . . . or if the patient cannot be relied upon to take oral iron as prescribed, Imferon (iron dextran injection) dependably increases hemoglobin and rapidly replenishes iron reserves. Precise dosage is easily calculated.

LAKESIDE

IN BRIEF: ACTION AND USES: A single dose of Imferon (iron dextran injection) will measurably begin to raise hemoglobin and a complete course of therapy will effectively rebuild iron reserves. The drug is indicated only for specifically-diagnosed cases of iron deficiency anemia and then only when oral administration of iron is ineffective or impractical. Such iron deficiency may include: patients in the last trimester of pregnancy; patients with gastrointestinal disease or those recovering from gastrointestinal surgery; patients with chronic bleeding with continual and extensive iron losses not rapidly replenishable with oral iron; patients intolerant of blood transfusion as a *source of iron;* infants with hypochromic anemia; patients who cannot be relied upon to take oral iron.

COMPOSITION: Imferon (iron dextran injection) is a well-tolerated solution of iron dextran complex providing an equivalent of 50 mg. in each cc. The solution contains 0.9% sodium chloride and has a pH of 5.2-6.0. The 10 cc. vial contains 0.5% phenol as a preservative.

ADMINISTRATION AND DOSAGE: Dosage, based upon body weight and Gm. Hb/100 cc. of blood, ranges from 0.5 cc. in infants to 5.0 cc. in adults, daily, every other day, or weekly. Initial test doses are advisable. The total iron requirement for the individual patient is readily obtainable from the dosage chart in the package insert. Deep intramuscular injection in the upper outer quadrant of the buttock, using a Z-track technique, (with displacement of the skin laterally prior to injection), insures absorption and will help avoid staining of the skin. A 2-inch needle is recommended for the adult of average size.

SIDE EFFECTS: Local and systemic side effects are few. Staining of the skin may occur. Excessive dosage, beyond the calculated need, may cause hemosiderosis. Although allergic or anaphylactoid reactions are not common, occasional severe reactions have been observed, including three fatal reactions which may have been due to Imferon (iron dextran injection). Urticaria, arthralgia, lymphadenopathy, nausea, headache and fever have occasionally been reported.

PRECAUTIONS: If sensitivity to test doses is manifested, the drug should not be given. Imferon (iron dextran injection) must be administered by deep intramuscular injection only. Inject only in the upper outer quadrant of the buttock, not in the arm or other exposed area.

CONTRAINDICATIONS: Imferon (iron dextran injection) is contraindicated in patients sensitive to iron dextran complex. Since its use is intended for the treatment of iron deficiency anemia only it is contraindicated in other anemias.

CARCINOGENICITY POTENTIAL: Using relatively massive doses, Imferon (iron dextran injection) has been shown to produce sarcoma in rats, mice and rabbits and possibly in hamsters, but not in guinea pigs. The risk of carcinogenesis, if any in man, following recommended therapy with Imferon (iron dextran injection) appears to be extremely small.

SUPPLIED: 2 cc. ampuls, boxes of 10; 5 cc. ampuls, boxes of 4; 10 cc. multiple dose vials.

LAKESIDE LABORATORIES, INC., Milwaukee, Wisconsin 53201

IMPORTANCE AND USE OF THE FUNCTIONAL CAPACITY AND THERAPEUTIC CLASSIFICATION FOR PATIENTS WITH HEART DISEASE

R. Paul Crank, Jr., M.D., *Atlanta*

THE FUNCTIONAL CAPACITY AND THERAPEUTIC CLASSIFICATION appearing in the New York Heart Association's Diseases of the Heart and Blood Vessels—Nomenclature and Criteria for Diagnosis* is used widely by cardiologists, employment counselors, and rehabilitation workers. Physicians who do not work with cardiac patients exclusively often fail to use this practical way of grouping cardiac patients because it is unknown to them or for one or more of the following reasons they do not use it because:

1. they believe that the system is used to place patients permanently in categories—that classification into a given group, if accurate, is a lifelong attribute;
2. they consider the Classification a purely administrative task which helps waste valuable time with the patient; and
3. they know that a consulting internist or cardiologist, who will be more skilled in assessing a patient's cardiovascular system, will classify him functionally if it seems necessary.

Those who know nothing of the Classification are changing that situation by reading this article. *Every* such physician should read it, or one similar to it, since by doing so he can recognize that the above three reasons are tragic misapprehensions. The Functional Capacity and Therapeutic Classification came into being as a part of cardiovascular terminology because of practical problems in day-to-day cardiac management, and has survived as a useful part of modern everyday cardiac patient treatment because it is useful to both physician and patient. But why should the blood pumping and transport system come in for special attention; why go to greater length and detail in recording cardiovascular diagnoses? The answer lies in the nature of the hemodynamic system itself—its structure, function, diseases, and the demands imposed on it.

In making any disease diagnosis, the physician considers (and should record) the organ or system affected; the etiologic class of the disease (E); any anatomical lesions present (A); and disturbances induced in physiologic function (P)—for example: "Atherosclerotic (E) stenosis of the left anterior descending coronary artery (A) complicated by thrombosis (A) and acute anteroseptal myocardial infarction with substernal pain (P) arterial hypotension, (P) and acute left heart failure (P) resulting in . . ."

This diagnosis gives the reader needed information about the patient's condition—but not enough! We *must* know how severely compromised the patient is physically, now and at various times during recovery, by his disabled circulation. The "functional capacity" is a short way of stating the patient's tolerance for activity, compared with his own usual activities and capabilities. Therapeutic classification is the logical outgrowth of the above total diagnosis —the prescribed level of physical activity. With only transitory hypotension, rapid relief of chest pain by opiates, and clearing of pulmonary edema with digitalis therapy, the above hypothetical patient might be classed "II-E" during the first few hospitalized days (complete rest prescribed even though he might temporarily tolerate activity quite well); then "II-D" through the first three to four weeks of convalescence; then "II-C" for another several weeks, and eventually "II-B." Thus, inspection of the classification recorded at intervals gives a clear picture of a patient's progress.

Activity Prescription

The classification, there, is really *more* useful to the non-internist than to the cardiologist, because it is a simplified short-hand code which guides us into assessing physical capacity to make an *activity prescription* each time we see a cardiac patient, and

* *Diseases of the Heart and Blood Vessels—Nomenclature and Criteria for Diagnosis. Little, Brown and Company, Boston, 1964, 6th edition. Pages 110-114.*

helps define improvement or deterioration. If recorded at intervals in the chart, the code will give an overall view of the illness. Moreover, paramedical and vocational workers can use the code in their work with the patient's further rehabilitation, under the physician's guidance.

Finally, another aspect of the code's use needs illustration. If our example patient were a warehouseman before the illness, his "ordinary" activity on the job would be to lift, load, and push 60-80 pound boxes several hours a day (and sometimes during overtime hours in peak seasons). He might be a "III-C" on returning to this job, and use of the code by his doctor would make this fact clear. However, if his employer could use the patient as a shipping clerk, a desk job with little physical activity, the change in "ordinary" activity would change him to "II-B." The patient's *personal physician*—not a consultant—is in the best position to understand his total life situation, and this physician can best use the code for the cardiac patient's benefit. It is the family physician, then, who can best improve cardiac patient management by using the classification.

69 Butler Street, S.E.

Prepared at the request of the Committee on Professional Education of the Georgia Heart Association.

THE FUNCTIONAL AND THERAPEUTIC CLASSIFICATIONS OF PATIENTS WITH DISEASES OF THE HEART*

*Excerpted from *Diseases of the Heart and Blood Vessels—Nomenclature and Criteria for Diagnosis,* 6th edition, Boston, Little, Brown and Company, copyright 1964 by the New York Heart Association, Inc., and available from the publisher, medical bookstores, and through local Heart Associations.

Functional Classification

Note: The classification of patients according to their cardiac functional capacity gives only a part of the information needed to plan the management of the patient's activities. A recommendation of prescription regarding physical activity should be based on information derived from many sources. The functional classification is an estimate of what the patient's heart will allow him to do and should not be influenced by the character of the structural lesions nor by an opinion as to treatment or prognosis.

Class I. Patients with cardiac disease but without resulting limitations of physical activity. Ordinary physical activity does not cause undue fatigue, palpitation, dyspnea, or anginal pain.

Class II. Patients with cardiac disease resulting in slight limitation of physical activity. They are comfortable at rest. Ordinary physical activity results in fatigue, palpitation, dyspnea, or anginal pain.

Class III. Patients with cardiac disease resulting in marked limitation of physical activity. They are comfortable at rest. Less than ordinary physical activity causes fatigue, palpitation, dyspnea, or anginal pain.

Class IV. Patients with cardiac disease resulting in inability to carry on any physical activity without discomfort. Symptoms of cardiac insufficiency or of the anginal syndrome may be present even at rest. If any physical activity is undertaken, discomfort is increased.

Therapeutic Classification

Note: The therapeutic classification is intended as a guide to the management of the activities of cardiac patients. It gives a prescription for the amount of physical activity which is advised for those in each functional class. From a practical point of view, it should be translated into terms of daily physical activity, such as walking a certain number of yards, climbing a specified number of stairs, lifting a certain number of pounds, and standing for an unlimited or limited part of the working day. For children it is necessary to individualize with permissible play programs, specifying the type and duration of outdoor and indoor activity which may be performed.

Class A. Patients with cardiac disease whose physical activity need not be restricted in any way.

Class B. Patients with cardiac disease whose ordinary physical activity need not be restricted, but who should be advised against severe or competitive efforts.

Class C. Patients with cardiac disease whose ordinary physical activity should be moderately restricted, and whose more strenuous efforts should be discontinued.

Class D. Patients with cardiac disease whose ordinary physical activity should be markedly restricted.

Class E. Patients with cardiac disease who should be at complete rest, confined to bed or chair.

Note: The functional capacity of the patient does not always determine the amount of physical activity that should be permitted. For example, although a child at the onset of active rheumatic carditis may not experience discomfort on playing baseball, rest in bed is imperative. Such a patient would be designated as Class I (Functional), E (Therapeutic). There is frequently a difference between the amount of activity which a patient can undertake in terms of his functional capacity and that which he should attempt in order to prevent aggravation of his disease. The recommendation of physical activity is based not only upon the amount of effort possible without discomfort but also upon the nature and severity of the cardiac disease.

Uncertain Diagnosis

No Heart Disease: Predisposing Etiologic Factor

Patients in whom no cardiac disease is discovered but whose course should be followed by periodic examination because of the presence or history of an etiologic factor which might cause heart disease. These should be recorded as *No Heart Disease: History of (stating the etiologic factor).*

Some patients in this category may also have symptoms or signs suggestive but not diagnostic of heart disease. The diagnosis in such cases should be *No Heart Disease: History of* ..... *and unexplained manifestation; re-examine on* .....

No Heart Disease: Unexplained Manifestation

Patients with symptoms or signs referable to the heart but in whom a diagnosis of cardiac disease is uncertain at the time of examination. These cases should be recorded as *No Heart Disease: Unexplained Manifestation,* with a further recommendation that re-examination be performed after a stated interval. When there is a reasonable probability that the symptoms or signs are not of cardiac origin, the diagnosis should be *No Heart Disease.*

DIURESIS

MERCUHYDRIN®
(meralluride injection)

Twenty years ago the publication of "A System for the Routine Treatment of the Failing Heart"[1] established a schedule of diuretic therapy as a primary factor in the treatment of acute congestive failure. With emphasis upon daily injections of Mercuhydrin (meralluride injection) until dry weight was obtained, Gold, et al. achieved a 40% increase in improvement, in ⅓ the time, over other methods then current. Today, most medical texts continue to recommend parenteral mercurials in acute congestive failure when prompt diuresis is indicated.

Recently Modell[2] has stated: "The mercurial diuretics are the injectable diuretics of choice since they are the most potent as well as the most dependable. Their toxicity is not an important consideration either by comparison with other potent diuretics or in relation to the seriousness of the conditions in which they provide such excellent relief."

LAKESIDE

IN BRIEF

Mercuhydrin is indicated in edema of cardiac or hepatic origin and in the nephrotic syndrome; it is contraindicated in acute nephritis and in anuric or oliguric states. *The usual adult dose is one to two cc. daily or every other day until "dry weight" is obtained.* Sensitivity is rare but small initial doses are advised to minimize potential reactions; vertigo, fever, and rash have occurred. Overdosage may produce electrolyte depletion, muscle cramps, and G. I. reactions. Supplied: 1 cc. and 2 cc. ampuls in boxes of 12, 25 and 100; 10 cc. rubber capped, multiple-dose vials (intramuscular or subcutaneous use only) in boxes of 6 and 100.

1. Gold, Harry, *et al.: A System for the Routine Treatment of the Failing Heart,* The American Journal of Medicine, Vol. III, No. 6:665-692 (Dec.) 1956.
2. Modell, Walter: *Drugs of Choice 1966-1967,* p. 97, 1966.

LAKESIDE LABORATORIES, INC., Milwaukee, Wisconsin 53201

LEGAL PAGE

"SURGEON, BE BRAVE"

John L. Moore, Jr., *Atlanta*

A SEPTEMBER, 1966, DECISION of the Supreme Court of New York contains extremely interesting criticism of the medical profession.

In that case an aged widow was suffering from diabetic, arteriosclerotic gangrene in her foot. The treating physician favored a transmalleolar amputation and two of the patient's sons agreed with the treating physician. A third son of the patient who was himself a physician favored conservative treatment, feeling that in his mother's terminal case the surgery would be cruelty beyond description.

The court-appointed psychiatrist was convinced that the patient did not understand the implications of the proposed procedure. The physician son, however, stated that while his mother was "foggy" at times, she was nevertheless aware of her body and its integrity and opposed any amputation.

At the trial the medical doctors seemed agreed that the prognosis after surgery in such a case was dubious to say the least. The physician son thought that his mother would not survive the operation. There was some disagreement as to whether the procedure was required as an "emergency."

To resolve the issue a suit was brought to declare the patient incompetent and to have the court appoint a guardian to consent to the surgical procedure. The New York Supreme Court, the basic trial court in that state, dismissed the case. Some of the language of the decision is very interesting and is set out below.

Decision Quoted

"Actually, it is apparent that this proceeding was necessitated only because of the current practice of the members of the medical profession and their associated hospitals of shifting the burden of their responsibilities to the courts, to determine, in effect, whether doctors should proceed with certain medical procedures definitely found necessary or deemed advisable for the health, welfare and perhaps even the life of a patient who is either unwilling or unable to consent thereto.

"It seems incongruous in light of the physician's oath that they ever seek legal immunity prior to action necessary to sustain life. How legalistic minded our society has become . . . !

"The history and triumphs of medicine are replete with the names of 'medical giants' . . . [who] risked martyrdom to perpetuate the principles and ideals of the Hippocratic oath. Today, however, 'good samaritan' statutes such as that recently enacted in New York, seemingly are deemed necessary by many physicians before they will render medical treatment. These laws are not to be regarded as a symbol of the medical profession's dedication to service 'when and where needed.' On the contrary, in my opinion, these laws are a blot upon the escutcheon of an honored profession.

"Certainly, the courtroom is not the proper forum . . . for a determination as to whether a physician should proceed to assist, cure, or ameliorate a serious physical condition which, while perhaps stable at the moment, as here, might suddenly erupt. . . . Perhaps the time will come when society, by appropriate legislative enunciation will make elderly people, like infants, wards of the court. . . . Until such time, however, by the very nature of the services they are called upon to render, physicians, like judges and lawyers, should be and must be prepared to perform the necessary acts and the moral duties attendant to their chosen profession, regardless of any potential, undesired, or unpopular consequences and the results arising therefrom."

It seems to this writer that the New York Court does not fully realize the practical distinction between the liability of judges and lawyers on the one hand and physicians on the other. Judges have automatically absolute immunity from suit with respect to acts performed as judges. Lawyers theoretically have the same malpractice liability as physicians but, as a practical matter, there have not been many suits against lawyers.

In the case discussed, this writer would predict with certainty that the amputation of the mother's foot was not performed. After the language of the Court's decision, could a sane surgeon proceed? On the other hand, the treating physician might well feel that he was not performing his entire medical duty to his patient as he saw it.

Certainly, the treating physician or surgeon is often faced with emergency situations where he must proceed in the interest of the health of the patient without the written consent of all persons who might be able to sue him. Actually, courts have protected physicians and surgeons in such a situation with almost complete unanimity. It seems to this writer that where doubt arises as to the course of treatment for an aged incompetent, because of differences among those who would be required to consent, that the court is required to decide the matter. This writer would hope that there would be legislative enunciation in the future as to elderly incompetents who frequently create difficult legal and medical situations.*

Suite 1200
C & S Bank Building

** The case commented upon in the above article is entitled In re Nemser, N.Y. Sup. Ct., New York City, September 20, 1966.*

Prepared at the request of The Medical Association of Georgia. Mr. Moore is a member of the firm of Alston, Miller & Gaines, General Counsel to The Medical Association of Georgia.

EMORY UNIVERSITY'S DEPARTMENT OF ANESTHESIOLOGY GETS BOOST OF TWO GRANTS

Training and research in Emory University's Department of Anesthesiology has been boosted by two recent grants.

The U.S. Public Health Service's National Institutes of Health is the donor of both grants.

One, which became effective July 1, 1966, and will continue for five years, provides funds for three postdoctoral fellowships.

Trainees may take part in a one or two-year training program. The amount of the grant is $301,588. Dr. E. K. Frederickson, Emory professor of anesthesiology, will direct the program.

Two fellows have been appointed. They are Dr. Stephen John Lange, Jr., a 1963 graduate of Emory University School of Medicine, and Dr. Katherine Stuckey, a graduate of the Medical College of South Carolina at Charleston, S.C.

Object of the grant is to train physicians for academic positions in anesthesiology. A shortage of persons to fill such positions exists. Emphasis in the fellowship program will be upon research methods and teaching. Emory is one of about ten institutions in the nation with such a program.

Dr. Lange's research will be concerned with how much energy it takes to breathe during anesthesia. He is particularly interested in patients with chronic lung disease and congestive heart failure.

Dr. Stuckey's fellowship is concerned with training in pediatric anesthesiology.

The program will be conducted in the Emory University and Grady Memorial Hospital areas. Emory's School of Medicine maintains anesthesia research laboratories in the Woodruff Memorial Research Building on the Emory campus and in the Woodruff Memorial-Henry Woodruff Extension in the Grady Hospital area.

The second grant is for $40,278 for the three-year period which began June 1, 1966. Dr. Frederickson is the principal investigator in the project the grant supports. It consists of a study of the effects of anesthesia on the action potential of the membrane which covers heart cells.

Dr. Frederickson said that his research is directed toward finding out how anesthetics work. It is hoped that the research will eventually lead to the development of better anesthetics.

NEW MEMBERS OF THE MEDICAL ASSOCIATION OF GEORGIA

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Smith, Robert B., III Associate—Fulton	P. O. Box 29457 Atlanta, Georgia 30329
Wilson, Colon H., Jr. Active—Fulton	69 Butler Street, S.E. Atlanta, Georgia 30303

A NEW PSYCHIATRIC THERAPY

Nyda W. Brown, M.D.,* *Augusta*

CLASSICAL PSYCHOANALYSIS has long held the focus on individual treatment with emphasis on the intrapsychic conflicts of the patient. It has been observed over the years that in many patients, solving the intrapsychic problem was not enough, as the individual might have to return to the overwhelming demands of a pathological family relationship.

A Case in Point

A simplified example of this situation might be seen in the case of the young adolescent who learns through treatment how to deal with some of his impulsive behavior which he and his family have found to be extremely objectionable. The patient returns home to find that his parents will not permit him any type of adult behavior (i.e., driving the car), because they fear he might misbehave as he did before treatment. The patient feels defeated and returns to his previous mode of adjustment. Thus, the therapeutic insights might appear to be wasted.

In order to make a therapeutic gain which might be maintained, such as in the example given, a new type of therapy is indicated. In the past 12 years, many psychiatrists have turned to family therapy as a means of meeting this goal.

If the family is actively involved in the treatment of the identified patient, they will be able to see how they aid and abet the patient's pathology. For instance, this family expected adult behavior from their adolescent son, but they were unwilling to give him any adult privileges. Thus they, in a sense, encouraged his reversion to a more childlike way of behavior as his more mature behavior wasn't getting him anywhere. When the family is treated in conjunction with the patient's treatment, all family members obtain greater mental health, and are thus able to deal with present and future family problems in a more realistic way.

Not as a Replacement

Family therapy is not thought of as a replacement for individual therapy. There are some patients who have no family, either geographically or in reality, and other patients whose problems are of too severe a nature to benefit initially from family therapy. Still another class of patients may have emotional difficulties which do not appreciably affect their family functioning.

Family therapy is indicated when the patient's behavior disturbs other family members or when family interactions contribute to the patient's illness. The decision to hospitalize the patient may be quite disruptive to the family. The decision not to hospitalize the identified patient usually provokes an even greater family crisis. The use of family therapy at this time is of immeasurable aid to the entire family not only in dealing with the current crisis, but in placing with them the responsibility and ability to deal with future crises.

Family therapy thus benefits not only the patient but everyone in the family. The application of this sort of multiple treatment logically extends into the field of community mental health.

Prepared at the request of the Sub-committee on Mental Health of the Medical Association of Georgia.

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* *Third year resident, Psychiatry Department, Eugene Talmadge Memorial Hospital.*

SECOND LOOK AT NEW DRUG LAWS?

Many economists are convinced that the American system of patents and trademarks and brand names has been a vital factor in the great progress of the United States and its leadership in establishing a standard of living superior to that anywhere else in the world. The factors involved include not only this system but also the right to advertise, the right to disseminate information, and the right to legitimate pride in distributing as widely as possible the benefits of new inventions and discoveries. How much time must pass before the ultimate effects of the new (drug) legislation become apparent is difficult to predict. The effects are only beginning to be felt. Perhaps the time is near when the legislators will have to take a second look.—Morris Fishbein, M.D., in *Postgraduate Medicine* (62:27-28), February 1966.

MAG Committee Report . . . . . .

With the February, 1967 issue, the Journal of the Medical Association of Georgia *is initiating a new feature, the "MAG COMMITTEE REPORT." It is our hope that each month an active MAG committee will convey to the membership their current interests, projects and activities to help the Georgia doctor remain informed of what his Association is doing in his behalf.*

COMMITTEE ON TRAFFIC SAFETY

The Medical Association of Georgia Committee on Traffic Safety is composed of Dr. J. G. McDaniel, Atlanta; Dr. John Meier, Albany; Dr. P. K. Dixon, Gainesville; Dr. W. T. Weaver, Atlanta; Dr. M. C. Arkin, Savannah; and Dr. Fleming L. Jolley, Atlanta, *Chairman*. Colonel R. H. Burson, Director of the State Department of Public Safety, is an ex-officio member.

During the first several months, there have been meetings to establish communication routes and unifying common aims with other interested groups.

The problem of Traffic Safety has been reviewed with members of the Department of Public Safety. Support to their immediate needs has been made in forthcoming legislative needs which include revision of the use of radar, an increase in the number of patrol, and the use of unmarked cars.

Concerned Organizations

At this time, the three primary organizations concerned in an organized movement are the Georgia Safety Council, the Atlanta Traffic and Safety Council, and the Georgia Independent Insurance Agents. Monthly (in the past three months more frequently) meetings are scheduled with Mr. Ray Brokaw, Mr. Ed Hughes, and Mr. Frank Morris, representatives of these groups. We attended the Regional Council of State Government in New Orleans December 20-21, 1966. Proposals to assist states in establishing programs under state rule to conform with recommendations of the National Safety Act (89-563 and 89-564) were made.

Other meetings have been with Attorney General Arthur Bolton, members of the Traffic and Safety Legislative Committee, Department of Health, Highway Truckers Association, and Department of Education. Particularly noteworthy has been the interest of Mr. James Mackay and his assistance in laying down much of our background information to date. The continued interest and support of Dr. Harrison Rogers, MAG State Legislative Chairman, and Mrs. Luther Rollins, MAG Woman's Auxiliary Safety Chairman, have been most helpful.

Highway fatalities have continued to increase. Any favorable approach is to be one involving "Total Environment" which must be made through organized citizen support. This cannot be done upon any "simple crash program" but only through a continuing unified effort.

Vital Legislative Measures

It is hoped that certain vital legislative measures will gain support and passage. If not, we must continue efforts for their passage. In addition to the previously mentioned radar, patrol, and "unmarked car" proposals, those needed are reflector-painted license plates, driver education with approved teacher programs in all schools, implied consent law (drunk drivers are involved in over 50% of the fatalities), a medical advisory board for licensing of drivers, and re-evaluation of drivers for renewing licenses at specified intervals (ideally four years until age 65, two years after age 65).

Future efforts of this committee with help from the State Board of Health and support of the Departments of Health, Public Safety, Highway, and Education, as well as the other organized citizen and business organizations will lend themselves to public information, research, and education in the fields of emergency care and transportation of the injured.

The Goal

The goal is prevention of traffic collisions. The causes of collisions can be directly related to the driver in over 95% of the instances. The vehicle and its roadway thus fall far behind. The recent "Sign up for Safety" petition was an initial cooperative effort. Its success or failure can be attributed to communication.

I, personally, hope that each local medical society will establish a traffic safety committee to work its community with the Georgia Safety Council and other organizations.

A more unified medical effort is desired with the Georgia Chapter of the American College of Surgeons and the Georgia Hospital Association.

During 1967, this committee hopes to see the development of another annual course in the emergency care and transportation of the injured for emergency personnel in Atlanta, similar to that which has been taking place in Augusta the past two years.

A more critical evaluation of the traffic fatalities is under way. A survey of representative hospital bed utilization by traffic injuries is being undertaken.

The committee has available background material for use by physicians upon request to inform any group the physician might find himself called upon to address.

I particularly want to thank Miss Merrilie Davis, our assigned executive staff member, as well as Milton Krueger, James Moffett, and Dub Wallace for their able assistance. Also, recognition should be given Ed Hughes, Frank Morris, and Ray Brokaw, along with Faegin Parrish (Department of Health), William D. Coleman (Cornell Automotive Crash Injury Research), and many others who are being most helpful in this program.

Fleming Jolley, M.D., Chairman
MAG Traffic Safety Committee

COMMUNITY MEDICAL TELEVISION NETWORK ESTABLISHED IN ATLANTA

The nation's first 2500 megaHerzian community television network devoted solely to medical instruction has received a Federal Communications Commission license to operate in Atlanta. The network will link Emory University School of Medicine, Emory University Hospital, Grady Memorial Hospital, the Veterans Administration Hospital, the Georgia Department of Public Health with its Georgia Mental Health Institute, and the U. S. Public Health Service Audiovisual Facility through the new 2500 mHz TV system set aside by the FCC for instructional purposes.

A Pattern for Similar Systems

Receipt of the license and details of the network were announced Wednesday, November 9, 1966, by officials of the institutions involved. The Atlanta network, named the Community Tele-Med System, is expected to be a pattern for similar systems throughout the United States. It was initiated by the Public Health Service Audiovisual Facility, located at the Communicable Disease Center in Atlanta, in cooperation with Emory University and Grady Hospital. It will broadcast medical material through a system which allows two-way video and audio communication between Grady Hospital (Emory medical school's main teaching hospital), and the Audio-visual Facility. The VA Hospital, Emory Hospital, the downtown office of the Georgia Department of Public Health and the Mental Health Institute initially will receive video only, but are planning to install two-way audio communication as soon as possible. Many other hospitals in the Atlanta area are interested in the development and are expected to tie into the System.

Telecasts are expected to begin shortly after January 1, 1967.

The 2500 mHz system was established by the FCC in 1963 for the transmission of educational and instructional TV programs from central locations to specific reception sites. Although other medical complexes are connected via closed circuit cabling or by standard broadcast means, only one other, the University of California Medical Center at San Francisco, presently uses the 2500 mHz system. The Atlanta system, however, is the first to link together a variety of medical institutions from points of origin geographically separated from the points of reception. Eventually any properly equipped hospital or other site within a radius of about 25 miles and within visual sight of the original transmitter will be able to tie into the System. Initial cost of tying in would be about $1,200 to $2,000 for construction of a tower making sending points visible at the receiving point, plus the cost of cables and receivers.

Programs Scheduled

Early programs scheduled include: Grand Rounds at Grady Hospital; Pediatric X-Ray Instruction; Psychiatric Conferences; Cardiology Tele-Lectures; X-Ray Technology Courses and specialized conferences in Neurology, Cancer, Obstetrics-Gynecology, and Surgery.

The Community Tele-Med System represents a cooperative effort at medical information exchange involving a private hospital and medical school, a state health department, a major city-county hospital complex, and facilities of the federal government. During the initial stages of the System's operation, the Audiovisual Facility will provide major staff support, engineering, consultation, production and programming direction, financial assistance, and equipment.

Following its initial stage, the Community Tele-Med System will be operated by a Council composed of representatives from Emory University School of Medicine, Emory Hospital, Grady Hospital, the VA Hospital, the Georgia Department of Public Health and the Mental Health Institute, Henrietta Egleston Hospital, and the Public Health Service Audiovisual Facility and other institutions which will join the System later. When the Council assumes responsibility for the System, funding will come from sources other than the Audiovisual Facility.

DEATHS

William J. Burdashaw, 66, of Augusta, died December 21, 1966, at a local hospital.

A native of Augusta, Dr. Burdashaw was the son of the late Dr. James F. and Jennette Stuart Burdashaw. He was a physician at VA Hospitals in New York City, Perry Point, Maryland, and Lenwood Hospital, Augusta, where he retired after 23 years service there. He was graduated from Richmond Academy and the Medical College of Georgia, and trained at Wills Eye Hospital, Philadelphia, Pennsylvania, and the University Hospital.

He was a member of Phi Rho Sigma Medical fraternity, Richmond County Medical Society, Medical Association of Georgia, John S. Davidson Masonic Lodge, Elizabeth Chapter Eastern Star, Jordan Bible Class and a past member of the Official Board of Trinity on the Hill Methodist Church and the Civil Service Retirement Association. He served as secretary of Southern Psychiatric Association and in addition to his profession he spent some of his time composing songs.

Survivors include his wife, Mrs. Ida Lake Burdashaw; two daughters, Mrs. George Schmitz of Miami Springs, Florida, and Mrs. R. A. Parrish, Jr., of Augusta, and three grandchildren.

Thomas Wootten Collier, a Brunswick physician since 1938, died December 13, 1966, at his home after a long illness.

He was a graduate of Emory University, class of 1923, and taught chemistry at Georgia Institute of Technology. He did graduate work at Yale and the University of Chicago where he was awarded teaching fellowships in chemistry after which he was associated with E. R. Squibb Company as a member of a team of chemists who developed the first multiple vitamins.

Dr. Collier was a graduate of Emory Medical School, class of 1931, interned at Piedmont Hospital and was a resident physician of Henrietta Egleston Hospital for Children, Atlanta. He was associated with the Georgia Department of Public Health 1936-1938, after which he entered private practice in Brunswick.

He was a past president of the Glynn County Medical Association, member of Georgia Medical Association, the American Medical Association, the Georgia Pediatric Society and a former chief of staff of Brunswick Hospital.

During World War II he was a member of the three-man Selective Service examining board for Brunswick.

He was a fellow of the American College of Allergists; a member of the Southeastern Allergy Association; the Association for Allergists for Mycological Investigation. He was author of numerous articles for professional journals and the *Annals of Allergy*. He was a member of St. Mark's Episcopal Church, Kiwanis Club, was the second president of Brunswick Escorts Club, and a past president of the Brunswick Young Men's Club.

Survivors include his widow, the former Miss Martha Virginia Sapp, and two daughters, Mrs. Alton Hunter Hopkins of Atlanta and Miss Carol Ann Collier of Brunswick, and a nephew, Bryan Wells Collier, III of Charleston, South Carolina.

William Phelps Ellis, 87, Harris County physician, died December 16, 1966, in Columbus after a long illness.

In 1906, he received his medical degree from Atlanta Medical School, now Emory University.

During World War I, Dr. Ellis served as a captain in the Army Medical Corps in France.

Afterward, Dr. Ellis resumed his practice in Gay. Moving to Pine Mountain in 1929, Dr. Ellis continued his practice until his retirement. He also served, for a number of years, as surgeon for the Central of Georgia Railroad.

Active in civic, educational and religious activities, Dr. Ellis was honored by the residents of Harris County on June 7, 1959 with "Dr. William P. Ellis Day."

Dr. Ellis held memberships in a number of organizations, including the Medical Association of Georgia and the American Medical Association.

Survivors include four daughters, Mrs. John G. Whitaker, Columbus, Mrs. Jess L. Goodman, Fort Benning, Mrs. Harold Smith, Fortson, and Mrs. Dick Sweeney, Phoenix, Arizona; a daughter-in-law, Mrs. Leroy Ellis, Louisburg, North Carolina; two sons, Dr. W. Y. Ellis, Newnan, and Ted Ellis, Pine Mountain; and 17 grandchildren.

Edward Descombe Wells, Jr., 50, died December 3, 1966, in Columbus. Dr. Wells was a resident of LaGrange.

Dr. Wells was born in Savannah, Georgia, the son of Mr. and Mrs. E. D. Wells, Sr. He had been a physician and surgeon in LaGrange for 10 years.

Survivors, other than his parents, include his widow, Mrs. Sarah Adair Wells, LaGrange; and four sons, Thomas Beckwith Wells, Edward Descombe Wells, III, Charles Adair Wells, and Maynard Scudder Wells, all of LaGrange.

He was a member of St. Mark's Episcopal Church, the American Medical Association, the Southern Medical Association, The Medical Association of LaGrange, and held a fellowship in the American College of Surgeons. He was a diplomate of the American Board of Surgery.

COUNTY MEDICAL SOCIETIES

Bibb County Medical Society has installed Sweeney Sikes, M.D. as president, and Ralph Newton, M.D. as president-elect for 1967. Both are from Macon. Other officers are Dr. Joe S. Robinson, vice president; Dr.

Charlotte Neuberg, secretary-treasurer; Dr. Charles Richardson, Sr., parliamentarian; Dr. Braswell Collins, councilor; and Dr. William H. M. Weaver, vice councilor to the Medical Association of Georgia.

Delegates to the Medical Association of Georgia are Dr. Gordon Jackson and Dr. Claytt James. Dr. Robert Jones, Dr. James Lawrence and Dr. John Ethridge are alternate delegates.

Dr. Hugh Sealy is retiring president and Dr. John Dupree is retiring secretary-treasurer.

At a recent meeting of the **Camden-Charlton Medical Society** new officers were elected for the coming year. Serving as president will be Dr. C. G. Jordan of St. Marys. He replaces Dr. Charles Cannon of Folkston. The vice president for the coming year will be Dr. G. W. Barker, also of St. Marys. Dr. Robinson of Kingsland was reelected to serve another term. Mr. McCollough of Kingsland was elected to represent the local society at the Medical Association of Georgia in the House of Delegates.

The **Fulton County Medical Society** has presented awards to 19 Atlanta civic leaders for contributions in advancing the city's health.

The awards were made during the December meeting of the society at the Academy of Medicine.

Dr. Linton H. Bishop, Atlanta cardiologist, was named president-elect for the coming year. Other officers elected were: Dr. Robert L. Brown, vice president; Dr. Robert E. Wells, senior member of the board of trustees; Dr. Charles E. Harrison, junior member of the board; and Dr. J. Watts Lipscomb, member of the judicial council.

Dr. J. Frank Walker was named chairman of the board; Dr. Peter Hydrick, vice chairman, and Dr. F. William Dowda, secretary-treasurer.

The civic leaders honored were: Frank Neeley, for sponsorship of the reactor facility at Georgia Tech; James Aldredge, for interest in the office of medical examiner; Edgar Forio, chairman Fulton-DeKalb Hospital Authority; Jim Furniss and Dr. R. C. Williams, Community Council of Atlanta, Inc.; Jack Izard, Dr. William Hamm and Dr. Ralph Murphy, United Appeal; Dr. John Letson, Dr. James Doyle and Dr. Hugh Moss, Atlanta school system; Dr. David Spencer and Dr. James Lieberman, Communicable Disease Center; Hollis Cobb and Luke Swenson, Northside Hospital; Ed Lord and Norris Ahern, Health Insurance Council of Georgia; Reese Inge, Squibb and Co., and A. B. Padgett, Metropolitan Foundation.

The Society also presented certificates of appreciation to 16 physicians who served it during 1966.

Certificates went to Drs. J. Willis Hurst, William D. Logan, Jr., George S. Roach, Jr., Frank L. Wilson, Jr., J. Norman Berry, Edwin C. Evans, W. Perrin Nicholson, III, Charles S. Jones, Harrison L. Rogers, Jr., Charles E. Brown, Roy A. Wiggins, Jr., Sheldon B. Cohen, Robert H. Stephenson, Andre J. Nahmias, and John E. McCroan.

Mrs. F. James Funk was honored as president of the woman's auxiliary of the society.

Thomas McGoldrick, Jr., M.D., Savannah, has been named president-elect of the **Georgia Medical Society** for 1968. Dr. Peter L. Scardino, urologist, was installed as the 1967 president, succeeding Dr. Jules Victor. Dr. Victor was named to the board of trustees.

Dr. William H. Lippitt was elected vice president and Dr. Jeff J. Holloman and Dr. J. J. Doolan were re-elected secretary and treasurer, respectively.

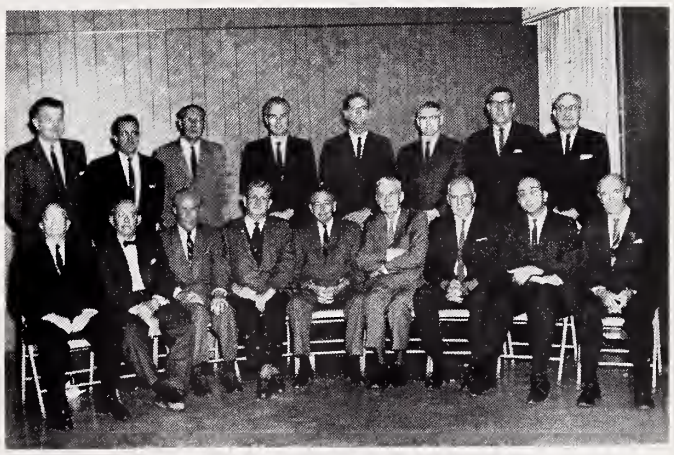
Other elections held named Dr. Lee Howard as councilor to the Medical Association of Georgia House of Delegates and Dr. W. W. Osborne, vice councilor; Dr. John Elliott and Dr. Joseph Mulherin as delegates to the Medical Association of Georgia with terms expiring in 1969, and Dr. Harry H. McGee and Dr. Debele Maner as alternate delegates.

W. D. Hall, M.D. was re-elected president of the **Gordon County Medical Society** at the regular meeting of the group. Other officers elected include J. L. Rabb, M.D., vice-president, and Byron Steele, M.D., secretary. Dr. Hall and Dr. Rabb are from Calhoun; Dr. Steele is from Fairmount.

A. Frank Bloodworth, M.D., Gainesville, was elected president of the **Hall County Medical Society** at the group's final yearly meeting in December. Bloodworth replaces outgoing president Dr. Samuel O. Poole.

Other officers elected were Dr. John K. Burns, III, vice president and Dr. A. D. Wright, Jr., secretary. Dr. Robert H. Anderson, Jr. and Dr. Billy S. Hardman were elected as delegates to the Medical Association of Georgia.

Members of the **Muscogee County Medical Society** met November 22, 1966, at Columbus. Guest speaker was Medical Association of Georgia, Field Representative, William V. "Dub" Wallace, Atlanta, who spoke on the "Armed Forces Medicare Expansion Program." This meeting also honored past presidents of the society at the Annual President's Dinner.



Pictured at the Annual President's Dinner honoring Past Presidents of the Muscogee County Medical Society are (seated, front row, left to right): Wm. F. Jenkins, W. P. Jordan, John Thompson, Hugh Bickerstaff, Arthur Berry, Odis D. Gilliam, Luther Wolff, Louis A. Hazouri, Bruce Threatte; (standing, back row, left to right) George Hutto, Franklin Edwards, James A. Elkins, Henry H. Boyter, Edgar B. Horn, George R. Conner, Simone Brocato and Dave Berman.

Richmond County Medical Society has elected new officers for 1967. They are: president, Daniel B. Sullivan, M.D.; president-elect, Stuart H. Prather, Jr., M.D.; vice-president, Lawton Q. Hair, M.D.; and secretary-treasurer, Ronald F. Galloway, M.D. All are from Augusta.

William N. Gee, M.D., Valdosta, has been elected president of the **South Georgia Medical Society**. He

succeeds Joyce Mixon, M.D., also of Valdosta. Other officers named were Dr. Russell Acree of Hahira, vice president, and Dr. Richard L. Nutt, secretary-treasurer.

Named delegates to the Medical Association of Georgia were Dr. John Miller, Dr. Fred Smith and Dr. Mack Greer of Homerville. Alternate delegates include Dr. H. B. Bechtel, Dr. Gee and Dr. Dewey Barton.

James H. Crowdis of Blakely has been elected president of the **Southwest Georgia Medical Society.** Other officers chosen included Dr. Jack G. Standifer, Blakely, vice president, and Dr. R. E. Jennings, Arlington, secretary-treasurer.

Dr. Crowdis, who succeeds Dr. David Wetherby of Fort Gaines, also was named as a delegate to a meeting of the Medical Association of Georgia. Dr. Jennings was named an alternate.

Leon Curry, M.D. of Metter has been elected president of the **Tri-County Medical Society.**

Dr. Sam Tillman of Statesboro will serve as vice president and Dr. Curtis Hames of Claxton will be the secretary and treasurer.

The outgoing president is Dr. John Deal of Statesboro.

PERSONALS

First District

Irving Victor has been elected chief of staff at St. Joseph's Hospital to succeed **John C. Howard.**

J. Reid Broderick was named vice president and chief of internal medicine.

Secretary and chief of intensive care is **F. D. Maner.** Treasurer and chief of dentistry is **Alex Paderewski.**

Other section chiefs are **Darnell L. Brawner,** gynecology and obstetrics; **Andre P. Phillips,** general practice, and **J. Moultrie Lee,** surgery.

Julian K. Quattlebaum, Jr. was elected a member of the Southern Surgical Association at the group's meeting in December in Boca Raton, Florida.

Fourth District

Robert L. Bennett, Executive Director of the Georgia Warm Springs Foundation and Medical Director of the Georgia Rehabilitation Center has been awarded the Georgia Rehabilitation Association's Professional Award for outstanding service to the physically handicapped of Georgia. The award was made at ceremonies held at Manchester, Georgia, December 2, 1966, climaxing the Eighth Annual Meeting of G.R.A. Dr. Bennett was presented the award by G.R.A. past president James J. Segars.

This award is presented annually to the individual who has made the most significant contribution in the rehabilitation of the physically handicapped of Georgia.

Fifth District

Former Governor, Carl E. Sanders, has appointed **Lamar B. Peacock,** Chief of Medicine at Georgia Baptist Hospital, to the Georgia State Board of Health. Dr. Peacock, who succeeds **Fred L. Allman, Jr.,** of Atlanta, began his term in December, 1966, and will serve until July 1, 1969.

Robert M. Fine served as a panel member of the Zola Cooper Histopathology Seminar at the Southern Medical Association meeting held in Washington, D. C. November 13-15, 1966. He also presented a case at the American Academy of Dermatology, which was held December 3-8, 1966, in Miami Beach, Florida.

Sidney Olansky attended the American Academy of Dermatology in Bar Harbour, Florida, December 3 through December 7, 1966. At the meeting he conducted a round-table discussion and attended meetings of the Professors of Dermatology and Dermatology Foundation. He also served as Chairman of the Symposium on Syphilis.

On December 11, Dr. Olansky was in Waco, Texas, attending the Twelfth District Medical Society where he was a guest speaker. His topic was the Management and Diagnosis of Syphilis.

R. Bruce Logue, Atlanta, Professor of Medicine, Emory University School of Medicine, received an award of merit from the American Heart Association at a meeting of the organization's Board of Directors held January 14, 1967, at Los Angles, California. Dr. Logue was honored for outstanding services to the association in the development of its national programs. The award, consisting of a bronze medallion, was given at a luncheon held in conjunction with the Director's meeting.

Sixth District

Ben Bashinski, Macon, has been elected the 1967 president of the Parkview Hospital medical staff.

Other officers include **Earl Lewis,** vice president, and **Charles R. Ireland,** secretary.

Henry H. Tift has been elected president of the medical staff of Middle Georgia Hospital, succeeding **J. T. Hogan.**

Other officers elected by the Middle Georgia Hospital medical staff for 1967 included **Ralph Newton,** vice president; **Jack Menendez,** secretary; **W. D. Hazlehurst,** chief of medicine; and **W. Earl Lewis,** chief of surgery.

The medical staff also awarded the "Doctor of the Year" plaque to **Joseph D. Applewhite,** who has practiced medicine for more than 53 years.

Seventh District

Leo Smith, Waycross, received a gift from the Ware County Chapter, Medical Assistants Association, and an honorary life membership in the society. The presentations were made during the chapter's annual banquet.

Tenth District

Terrell B. Tanner has been named Chief of Staff at Hart County Hospital. He succeeds **J. W. Williams, Jr.**

J. H. Milford was named chief of Service, Department of Medicine; **L. G. Cacchioli** is Chief of Service, Department of Obstetrics and Gynecology, and **M. N. Dalton** was named Chief of Service, Department of Surgery.

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Cover

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JOURNAL OF THE MEDICAL ASSOCIATION Georgia

113th Annual Session Official Call

Extended to All Members of the Medical Association of Georgia

THE OFFICIAL CALL for the 113th Annual Session of the Medical Association of Georgia is hereby extended to all Association members. This meeting will be convened on April 30, May 1, and May 2, 1967, at the Marriott Motor Hotel, Atlanta, Georgia. The Woman's Auxiliary to the Medical Association of Georgia will convene their 42nd Annual Convention at the Marriott Motor Hotel during the MAG Annual Session.

Registration

The MAG Official Registration Desk will be located at the entrance to the Exhibition Hall adjacent to the Meeting Rooms at the Marriott Motor Hotel.

The Registration Desk will be open for member's registration and guest registration on Sunday afternoon, April 30 from 1:00 P.M. to 6:00 P.M.; Monday, May 1 from 8:00 A.M. to 5:00 P.M.; and Tuesday, May 2 from 8:00 A.M. to 12:00 NOON.

MAG members and guests are requested to register on arrival at the Marriott Motol Hotel so that they may obtain badges and programs at the MAG Registration Desk. No one will be admitted to the Exhibition Hall and Meeting Rooms or other MAG functions without an Official MAG Registration Badge.

MAG Scientific Sessions

MAG Scientific Section and Joint Scientific Section Meetings to which all MAG members are invited will convene on Sunday afternoon, April 30 from 2:00 P.M. to 5.00 P.M. and again on Monday afternoon, May 1 from 2:30 P.M. to 5:00 P.M. These Scientific Sessions will be be held in various meeting rooms at the Marriott Motor Hotel as shown in the Program with the exception of the Orthopedic Section Meeting, Monday, May 1 at 2:30 P.M. which will be held at the Scottish Rite Hospital, 321 West Hill Street, Decatur, Ga.

MAG General Business Sessions

The Association will convene its three traditional General Business Sessions at the Marriott Motor Hotel. The First General Business Session for all MAG members will be held Sunday afternoon, April 30 at 5:00 P.M. in the South Ballroom at which time nomination for Association Office and "General Practitioner of the Year Award" will be made. The Second MAG General Business Session will be convened jointly with the MAG House of Delegates meeting on Monday morning, May 1 at 9:00 A.M. in the North Ballroom. During this second business session greetings will be tendered the Association, the MAG President-Elect will outline his program for the coming year, the Woman's Auxiliary to MAG will report on activity, and the MAG Memorial Service in memory of departed colleagues will be held. The Third and final MAG General Business Session will also be held jointly with the House of Delegates meeting on Tuesday morning, May 2 at 9:00 A.M. in the North Ballroom. At this final session, MAG Awards will be presented, election results will be announced, and new MAG Officers installed. The MAG Business Sessions will precede the House of Delegates' deliberations at both of the joint meetings.

MAG General Assembly

A meeting of great interest to all members will be held on Monday morning, May 1 at 10:30 A.M. in the North Ballroom. At this meeting three out-of-state guest speakers will address the membership. Featured topics include "Emergency Care and Transportation of the Injured," sponsored by the MAG Traffic Safety Committee; a talk on "Practical Conservatism" sponsored by the Georgia Medical Political Action Committee (GaMPAC); and an address on "Regional Medical Programs for Heart Disease, Cancer, Stroke and Related Diseases," given under the auspicies of the Abner W. Calhoun Lectureship.

MAG House of Delegates Sessions

The two sessions of the MAG House of Delegates will be held in the North Ballroom, Marriott Motor Hotel. The first session of the House will be convened on Monday morning, May 1 at 9:00 A.M. in conjunction with the MAG General Business Session. At this first session, all reports, resolutions and other business will be introduced for referral to Reference Committees of the House.

All House Reference Committees will meet concurrently on Monday afternoon, May 1 at 2:30 P.M. in five adjacent rooms at the Marriott Motor Hotel, as listed in the Program. Delegates and members alike are urged to attend these Reference Committee meetings so that they may make their views known to assist the Committees in their deliberations on items of business referred to them by the House of Delegates.

The second session of the House of Delegates will be held Tuesday morning, May 2 at 9:00 A.M. in conjunction with the final MAG General Business Session. At this last session, the House Reference Committees will report their recommendations and the House will vote to set MAG policy for the Association.

All Delegates to MAG are strongly urged to attend both sessions of the House of Delegates to fulfill their responsibilities to the County Medical Societies they represent. *All Delegates are requested to attend both*

sessions of the House at least 15 minutes in advance of these meetings so that the Delegates may be registered by the House Credentials Committee as "voting members" of the House. Registration of MAG Delegates will be conducted at a SPECIAL DELEGATES REGISTRATION DESK adjacent to the entrance of the North Ballroom for both sessions of the House. *The House Credentials Committee will verify the Delegates' Credential Cards so that "voting privileges" may be accorded each Delegate who will receive a "special ribbon badge" in place of his regular registration badge.* A "reserved seating area" will be provided in the North Ballroom for "voting delegates" and their special Delegate's ribbon badge will admit them to this area in the meeting room.

MAG Message Center

A Message Center will be maintained at the MAG Registration Desk adjacent to the Exhibition Hall at the Marriott Motor Hotel. Pages from the Woman's Auxiliary to MAG will staff this Center during the MAG Annual Session. An Official MAG Bulletin Board will carry messages at the Registration Desk.

MAG Headquarters Office and Press Room

The MAG Headquarters Office Staff will maintain a Headquarters Secretarial Office adjacent to the Exhibition Hall at the Marriott Motor Hotel. Staff secretarial activities will be conducted in this office in conjunction with the business of the Association during the Annual Session. The Association will also maintain a "Press Room" adjacent to the Exhibition Hall for use by representatives of the press, radio and T.V. media during the Annual Session.

MAG Memorial Services

The Medical Association of Georgia will hold its traditional annual Memorial Service at the joint General Business Session and House of Delegates meeting on Monday morning, May 1 at 9:00 A.M. in the North Ballroom, Marriott Motor Hotel. All members and their wives are invited to attend this service which is held in memory of those members who have died during the past Association year May, 1966 through April, 1967. The event will honor and recall the dedicated service and contributions of the following doctors of medicine:

Anita C. Adams, Philadelphia, Pennsylvania, November 1, 1966
William T. Ariail, Cornelia, September 12, 1966
D. A. Bagley, Austell, June 19, 1966
William H. Bateman, Atlanta, August 27, 1966
Harry B. Baxley, Donalsonville, November 9, 1966
W. R. Bedingfield, Augusta, October 10, 1966
F. Kells Boland, Jr., Atlanta, January 12, 1967
D. T. Bond, Danielsville, April 24, 1966
J. E. Bradford, Dalton, November 3, 1966
D. M. Bradley, Waycross, November 3, 1966
William J. Burdashaw, Augusta, December 21, 1966
Winston E. Burdine, Atlanta, January 7, 1967
J. K. Burns, Gainesville, January 14, 1967
R. Frank Cary, Macon, October 11, 1966
G. C. Cole, Dallas, January 18, 1967
T. W. Collier, Brunswick, December 13, 1966
W. B. Crawford, Jr., Savannah, May 24, 1966
Shelley C. Davis, Atlanta, May 22, 1966
Cameron B. Day, Bainbridge, September 22, 1966
J. C. Dover, Clayton, June 23, 1966
M. J. Egan, Savannah, November 5, 1966
H. C. Ellis, McDonough, June 11, 1966
W. P. Ellis, Pine Mountain, December 16, 1966
Earnest Felder, Atlanta, October 30, 1966
H. C. Frech, Savannah, November 9, 1966
Glenville A. Giddings, Atlanta, June 6, 1966
Ben J. Goldman, Hazelhurst, June 5, 1966
W. C. Goodpasture, Atlanta, November 5, 1966
William E. Goodyear, Atlanta, October 7, 1966
William W. Hodges, Atlanta, January 18, 1967
Enon C. Hopkins, Augusta, June 13, 1966
J. A. Johnson, Jr., Atlanta, July 11, 1966
J. Harry Lange, Atlanta, September 3, 1966
Harry Lipton, Atlanta, February 24, 1967
J. E. Mercer, Vidalia, January 8, 1967
King W. Milligan, Augusta, January 1, 1967
William B. Nalley, Gainesville, January 15, 1967
Frank L. O'Conner, Rossville, August 3, 1966
Paul L. Schroeder, Atlanta, October 26, 1966
A. Leslie Stephens, Atlanta, October 21, 1966
Cosby Swanson, St. Petersburg, Florida, October 1, 1966
H. S. Titshaw, Avondale Estates, June 14, 1966
Edward D. Wells, Jr., LaGrange, December 2, 1966
G. O. Whelchel, Athens, May 24, 1966
G. W. Willis, Ocilla, January 10, 1966
L. E. Wilson, Atlanta, August 8, 1966

Special Society and Alumni Meetings, Luncheons and Dinners

Specialty Societies and Alumni groups have planned meetings, luncheons and dinners for their membership and their guests in conjunction with the MAG Annual Session. These events are listed in the Official MAG Program, in the order of the date and time the event is scheduled—*under "Related Events."* As these sessions are limited to the membership of the organization sponsoring the affair, they are not considered an MAG activity and they are listed in "box form" in the MAG Program to distinguish them from Official MAG Sessions to which all members are welcome.

MAG Social Events

Three social events are scheduled by the Association during the Annual Session. A House of Delegates and Commercial Exhibitors Social Hour has been planned for MAG Delegates and their wives and Exhibitors to be held Sunday afternoon, April 30 at 6:00 P.M. to 7:00 P.M. in the Plantation Suite, Marriott Motor Hotel. Tickets for this affair will be given all MAG Delegates and Exhibitors as guests of the Association.

The Fulton County Medical Society will host the membership, their wives and guests at a Social Hour to be held Monday evening, May 1 at 6:30 P.M. to 7:30 P.M. in the Ballroom, Marriott Motor Hotel.

The Association will honor its President on the occasion of the MAG President's Banquet to be held Monday evening, May 1 at 8:00 P.M. in the Ballroom, Marriott Motor Hotel. The President's Banquet will immediately follow the Fulton County Medical Society Social Hour and all MAG members and their wives are most cordially invited to attend the Banquet dinner and entertainment. Tickets to the MAG President's Banquet will be sold at the MAG Official Registration Desk. *As space for this Banquet is limited, all members are urged to purchase their Banquet tickets on Sunday, April 30.* Accordingly, Banquet tickets will be sold on a first come-first served basis until the capacity of the banquet hall is reached.

MAG Golf Tourney

An MAG Golf Tourney will be held at the Standard Town and Country Club—Northeast Expressway, Left on North Druid Hills Road 0.7 of a mile, Left on Pine Grove Road 0.25 of a mile, and Left on Standard Drive.

The dates of the tourney are Saturday, April 29, and Sunday, April 30, 1967. To simplify matters and to guarantee you a foursome, it is suggested you make your own foursome beforehand. If you do not have a group, the Club Pro, Mr. Phil Kelnhofer, will help you get together with other MAG members. To avoid the first tee wait, the hours suggested for tee-off are: Saturday, April 29 from 10:00 A.M. to 12:00 NOON and Sunday, April 30 all afternoon. The Club Pro will take your card at the end of the round and get your handicap. Prizes will be awarded on Monday night, May 1 at the MAG President's Banquet at 8:00 P.M., Ballroom, Marriott Motor Hotel. Note: Player will be responsible for the greens' fee. No entrance fee is required. Cash bar. To facilitate your entry in the tournament, please write to: Dr. Richard C. Margeson, 384 Peachtree Street, N.E., Atlanta, Georgia 30308, giving your name and indicating whether or not you will have a foursome.

Scientific Exhibits

Scientific Exhibits will be displayed in the Exhibition Hall adjacent to the meeting rooms at the Marriott Motor Hotel. These scientific exhibits are prepared by physicians who will be at their exhibits to discuss their presentation with the membership. All physicians are urged to visit each scientific exhibit in the interests of professional education. Awards for outstanding Scientific Exhibits will be presented at the final MAG Business Session on Tuesday morning, May 2 at 9:00 A.M. in the North Ballroom, Marriott Motor Hotel.

Commercial Exhibits

Commercial Exhibits will be displayed in the Exhibition Hall adjacent to the meeting rooms at the Marriott Motor Hotel. The Exhibition Hall will be used to gain both entrance and exit to the meeting rooms. These exhibits provide technical information of importance to the practice of medicine on products and services available to the medical profession.

It is extremely important that every member visit each of these exhibits and register with the exhibitor. Your cooperation is urged and requested as these displays are specially designed to benefit the profession. Commercial exhibitors play an extremely important role in making the MAG Annual Session possible through their support of the meeting. Your MAG Commercial Exhibits Committee asks that all physicians be sure to visit and register at all Commercial Exhibit Booths so that MAG may continue to receive this support.

The following firm has contributed funds to the Association for direct use in programming scientific speakers at this Annual Session: Eli Lilly and Co., Indianapolis, Indiana.

A list of Commercial Exhibitors and contributors participating in the MAG 1967 Atlanta Annual Session is as follows:

Booth No.	*Name of Firm*
1	American Surgical Supply Company, Atlanta, Ga.
2	Abbott Laboratories, North Chicago, Illinois
3	Wm. P. Poythress & Co., Inc., Richmond, Virginia
4	Schering Corporation, Bloomfield, New Jersey
5	Sandoz Pharmaceuticals, Hanover, New Jersey
6	McMahan Shoes, Atlanta, Georgia
7	Mayrand, Inc. Pharmaceuticals, Greensboro, N. C.
8	The Stuart Company, Pasadena, California
9	Life Insurance Company of Georgia, Atlanta, Ga.
10	Endo Laboratories, Inc., Atlanta, Georgia
11	Delta Drug Corporation, Jacksonville, Florida
12	Warren-Teed Pharmaceuticals, Inc., Columbus, Ohio
13	U. S. Vitamin & Pharmaceutical Corp., New York, N. Y.
14	Smith Kline & French Laboratories, Philadelphia, Pa.
15	Ayerst Laboratories, New York, New York
16	Smith, Miller & Patch, Inc., New York, New York
17	The Christopher Company, Columbus, Georgia
18	Encyclopedia Britannica, Chicago, Ill.
19	The Lanier Company, Atlanta
20	W. B. Saunders Company, Philadelphia, Pa.
21	Valtronic Corporation, Decatur, Georgia
22	Flint Laboratories, Morton Grove, Illinois
23	A. H. Robins Company, Richmond, Virginia
24	CIBA Pharmaceutical Company, Summit, New Jersey
25	Americana Corporation, Beverly Hills, California
26	Ortho Pharmaceutical Corporation, Raritan, New Jersey
27	E. R. Squibb & Sons, New York, New York
28	Astra Pharmaceutical Products, Inc., Worcester, Mass.
29	Esta Medical Laboratories, Inc., New Brunswick, N. J.
30	J. B. Roerig and Company, New York, New York
31	
32	
33	B. F. Ascher and Co., Inc., Kansas City, Mo.
34	Financial Service Corporation of America, Atlanta, Ga.
35	Purdue Frederick Company, Yonkers, New York
36	Dictaphone Corporation, New York, New York
37	Reid-Provident Laboratories, Atlanta, Georgia
38	Wachtel's Physician Supply, Savannah, Georgia
39 & 40	The Coca-Cola Company, Atlanta, Georgia
41	Mead Johnson Laboratories, Atlanta, Georgia
42	Geigy Pharmaceuticals, Ardsley, New York
43	G. D. Searle & Co., Chicago, Illinois
44	Loma Linda Foods, Riverside, California
45	Merck Sharp & Dohme, West Point, Pennsylvania
46	The Upjohn Company, Kalamazoo, Michigan
47	Health Insurance Council of Georgia, Atlanta
48	Carnation Company, Los Angeles, California
49	
50	
51 & 52	International Business Machines Corporation, Atlanta, Georgia
53	Medco Products Co., Inc., Atlanta
54	Parke, Davis & Company, Detroit, Michigan

Fifty Year Members

Physician members who have practiced medicine for 50 years will be honored at the MAG Annual Session by the award of a 50-Year Pin and Certificate. These awards will be presented at the final MAG Business Session on Tuesday morning, May 2 at 9:00 A.M. in the North Ballroom, Marriott Motor Hotel. The following list contains the names of members of the Medical Association of Georgia who, as of the year 1967, have practiced medicine for 50 years. It does not include physicians who have already received Gold Membership Cards. The list includes only those members in the Class of 1917 who were also licensed in Georgia in 1917 as follows:

Rudolph A. Bartholomew	Atlanta
John D. Blackburn	Thomaston
John K. Burns, Jr.	Gainesville
Robert L. Carter	Thomaston
Ovid H. Cheek	Dublin
Zachary S. Cowan	Atlanta
Willis P. Jordan, Sr.	Columbus
Floyd W. McRae	Atlanta
B. B. Mattox	Elberton
Walter E. Mobley	Macon
William C. Patterson, Jr.	Smyrna
Trammell Starr	Dalton
Charles B. Upshaw	Atlanta
Leonard W. Willis	Bainbridge

MAG Voting Privileges

The MAG Constitution and Bylaws states that dues for Association members shall be payable on or before January 1 of the year for which they are levied. The Bylaws further state that any member whose name has not been reported for enrollment and whose dues for the current year have not been remitted to the MAG Headquarters Office on or before April 1 shall stand suspended until his name is properly reported and his dues for the current year properly remitted. The Secretary of each component county medical society must forward the physician's dues to MAG as the Association cannot under any circumstances receive such dues money directly from the member.

For voting purposes in the election of MAG officers at the Association Annual Session, only dues-paying members and certain other categories of membership will be allowed the privilege of voting. *If a member's MAG dues has not been forwarded to MAG prior to the time of an Annual Session, such member will not be allowed to vote unless that member pays his MAG dues to the County Society Secretary and the County Society Secretary gives such dues to the MAG Secretary during an Annual Session—but prior to the time of the official closing of the MAG Ballot Box, according to an MAG Council ruling.* If such procedure is followed, the MAG Secretary, on receipt of a physician's MAG dues from the physician's County Medical Society Secretary, will then authorize the Teller's Committee to provide the physician with a ballot for voting purposes.

VOTING RULES

Bylaws, Chapter V, Election of Officers

BYLAWS, CHAPTER V, ELECTION OF OFFICERS. SECTION 3. METHOD. The President shall appoint a committee of not less than three Tellers immediately after the close of nominations, who shall have charge of the election. The Secretary shall have prepared in advance an official ballot and an official ballot box, which shall be kept in the custody of the Tellers Committee. One ballot only shall be given to each active voting member when he presents himself to cast his ballot. Each member and no other shall prepare his ballot and shall deposit it at that time in the locked ballot box.

The candidates for office receiving a majority of the votes shall be declared elected, but if no majority is received on the first ballot, the members present shall select by secret ballot the officer from the two candidates having the highest number of votes.

SECTION 4. TIME. Voting shall take place during the hours of the scientific program up to the beginning of the last day of the Annual Session. At that time the Committee of Tellers shall count the ballots and report their findings to the members.

Aesculapius Award to Be Presented to Outstanding Scientific Exhibit

The Medical Association of Georgia, in cooperation with Mead Johnson Laboratories, takes pleasure in announcing the AESCULAPIUS AWARD, to be presented to the author of the most outstanding scientific exhibit shown at the 1967 Annual Meeting.

The scientific exhibits will be judged by a committee of the Association; and the winner of the AESCULAPIUS AWARD chosen by them. The winner will be presented with a certificate, suitably inscribed with the title of the exhibit and the author's name, and will receive a $200 cash prize donated by Mead Johnson Laboratories. Presentation will be made during the convention.

Physicians interested in submitting exhibits for showing at the Annual Meeting should make application to Medical Association of Georgia, 938 Peachtree Street, N.E., Atlanta, Georgia.

CALL FOR SCIENTIFIC EXHIBITS

113TH ANNUAL SESSION OF THE MEDICAL ASSOCIATION OF GEORGIA
Atlanta, Georgia, April 30-May 1-2, 1967

For Information and Applications, Write to:

John McClure, Jr., M.D., Chairman, MAG Scientific Exhibits Committee
938 Peachtree Street, N.E. • Atlanta, Georgia 30309

For Your MAG 1967 Annual Session Hotel & Motel Reservations

APPLICATION FOR HOTEL AND MOTEL ACCOMMODATIONS
Medical Association of Georgia 113th Annual Session
April 30-May 2, 1967—Atlanta, Georgia

A HOUSING BUREAU has been established for your convenience in making hotel and motel reservations for the 1967 Annual Session of the Medical Assocation of Georgia. Comparable room rates and accommodation information is listed. *Please Use the Reservation Form below:* (1) specify your first, second and third choice hotel or motel; (2) anticipated date and hour of arrival; (3) date and approximate hour of departure; and (4) the names and addresses of all persons who will occupy the accommodations. *All reservations must be cleared through the Housing Bureau as the MAG room requirements necessitate the holding of these "blocks of rooms" for the MAG membership.* Please *do not* write the hotel of your choice—as only the Housing Bureau can reserve space for you in the MAG block of rooms. Since all requests for rooms will be handled in chronological order (first come—first served), applications should be mailed as early as possible to secure the accommodations desired. All reservations will be confirmed. *Please also note that the MAG reserved "block of rooms" will be released April 14, 1967 and no reservations after that date will be processed by the Housing Bureau.*

Marriott Motor Hotel: Cain and Courtland Streets (MAG-250 rooms); **Single $14 to $18; Double 18 to $22; Twin $18 to $22**

Holiday Inn Downtown: 175 Piedmont Street, N.E. (MAG-75 rooms); **Single $11.50; Double $14.50; Twin $16.50**

The Regency Hyatt House: 265 Peachtree Street (MAG-250 rooms); **Single $16 to $22; Double and Twin $22 to $28**

Please Type or Print

Cut out and send to:

HOUSING BUREAU, MEDICAL ASSOCIATION OF GEORGIA
Suite 806, 230 Peachtree Street, Atlanta, Georgia 30303

Please reserve the following accommodations for the 1967 Annual Session of the Medical Association of Georgia.

Hotel or Motel Preference

1st Choice ..... ☐ Double Room at $..... to $.....
2nd Choice ..... ☐ Double Room at $..... to $.....
3rd Choice ..... ☐ Twin Bedroom at $..... to $.....
☐ Other Type .....

Arrival Date ..... Hour ..... A.M. ..... P.M.
Departure Date ..... Hour ..... A.M. ..... P.M.

THE NAME OF EACH HOTEL GUEST MUST BE LISTED. Include all names of all persons for whom you are requesting reservations and who will occupy the room (s):

Name of Occupant (s)	Address
.....	.....
.....	.....
.....	.....

Individual Requesting Reservations

Name .....
Address .....
City ..... State .....
Zip Code .....

If hotels or motels of your choice are unable to accept your reservations, the Housing Bureau will make reservations to fit your specifications elsewhere.

THE PROGRAM

SATURDAY, APRIL 29

RELATED EVENTS

(Not a part of Official Program)

NOTE: Make reservations in advance with Chairman if possible.

12:00 Georgia Chapter, American Academy of Pediatrics Luncheon
Marriott Motor Hotel, Tara Suite Salon 1 and 2
J. Rhodes Haverty, Atlanta, Chairman

2:00 Georgia Chapter, American Academy of Pediatrics Business Meeting
Marriott Motor Hotel, Tara Suite Salon 1 and 2
J. Rhodes Haverty, Atlanta, Chairman

2:00 Georgia Society of Anesthesiologists Scientific Meeting
Parliament House Motor Inn, 70 Houston St.
Thomas L. Tidmore, Jr., Atlanta, Presiding

2:00 Neuroleptalgesia
Bryan Craythorn, Morgantown, West Virginia

3:00 Pharmacology of Drugs Related to Neuroleptalgesia—Barbiturates and Narcotics
Harry Williams, Atlanta

4:00 Discussion of Above Papers
Thomas L. Tidmore, Jr., Moderator

4:30 Georgia Society of Anesthesiologists Business Meeting

5:30 Georgia Pediatric Society Social Hour and Dinner
Marriott Motor Hotel and Barn Theater
J. Rhodes Haverty, Atlanta, Chairman

7:00 Georgia Radiological Society Social Hour and Dinner
Atlanta Athletic Club
Richard A. Elmer, Atlanta, Chairman

7:00 Georgia Society of Dermatologists Social Hour and Dinner.
(To Be Announced)
Robert M. Fine, Atlanta, Chairman

SUNDAY, APRIL 30

RELATED EVENTS

(Not a part of Official Program)

NOTE: Make reservations in advance with Chairman if possible.

8:00 Georgia Radiological Society Business Meeting
Marriott Motor Hotel
Richard A. Elmer, Atlanta, Chairman

12:00 Georgia Radiological Society Luncheon
Marriott Motor Hotel
Richard A. Elmer, Atlanta, Chairman

9:00 Georgia Society of Anesthesiologists Scientific Meeting
Parliament House Motor Inn, 70 Houston St.
Thomas L. Tidmore, Jr., Atlanta, Chairman

9:00 Hazards in the Postoperative Period
Bryan Craythorn, Morgantown, West Virginia

10:00 Respiratory Stimulants
Harry Williams, Atlanta

10:30 Panel on Post-Anesthetic Management
Moderator
Thomas L. Tidmore, Jr., Atlanta
Panel
Bryan Craythorn, Morgantown, West Virginia
Harry Williams, Atlanta
Claude Taylor, Atlanta
Evan Frederickson, Atlanta

12:00 Georgia Pediatric Society Luncheon and Business Meeting
Marriott Motor Hotel, Plantation Suite
J. Rhodes Haverty, Atlanta, Chairman

9:00 Georgia Society of Dermatologists Clinical Case Presentations
Dermatology Department, Emory Clinic, Clifton Road
Robert M. Fine, Atlanta, Chairman

12:00 Georgia Society of Dermatologists Luncheon
Marriott Motor Hotel
Robert M. Fine, Atlanta, Chairman

4:30 Georgia Society of Dermatologists Business Meeting
Marriott Motor Hotel, Tara Suite Salon 3
Robert M. Fine, Atlanta, Chairman

12:00 Georgia Psychiatric Association Luncheon and Business Meeting
Marriott Motor Hotel
Sheldon B. Cohen, Atlanta, Chairman

12:00 Georgia Chapter, American College of Chest Physicians and Georgia Thoracic Society Luncheon and Business Meetings
Marriott Motor Hotel, Hermitage Suite Central
Jules Victor, Savannah, President
Georgia Chapter, American College of Chest Physicians
Frank A. Blalock, Rome, President
Georgia Thoracic Society

2:00 Georgia Chapter, American College of Chest Physicians and Georgia Thoracic Society Scientific Meeting
Marriott Motor Hotel, Hermitage Suite West
Walter S. Dunbar, Atlanta, Program Chairman

2:00 INH Prophylaxis
Sidney H. Dressler, Atlanta

2:25 The Indications for More Extensive Pulmonary Function Studies
Albert Haas, New York, New York

2:50 Myocardial Revascularization
Donald B. Effler, Cleveland, Ohio

3:30 The Pathophysiology and Management of Severe Bronchial Asthma
Hylan A. Bickerman, New York, New York

3:55 Evaluation and Preparation of a Patient With Chronic Pulmonary Disease for Surgery
Joseph F. Tomashefski, Columbus, Ohio

12:00 Georgia Orthopedic Society Luncheon
Marriott Motor Hotel
F. James Funk, Atlanta, Chairman

5:00 Georgia Orthopedic Society Business Meeting
Marriott Motor Hotel
F. James Funk, Atlanta, Chairman

5:00 Georgia Chapter, American Association Public Health Physicians Business Meeting
Marriott Motor Hotel
T. O. Vinson, Decatur, Chairman

9:00 Georgia Association of Pathologists Business
12:30 Meeting and Luncheon
Marriott Motor Hotel, Tara Suite Salon 1
Lester Forbes, Atlanta, Chairman

SUNDAY AFTERNOON, APRIL 30

2:00 Psychiatry, Obstetrics & Gynecology, General Practice and Public Health Joint Section Meeting
(ALL PHYSICIANS INVITED)
Marriott Motor Hotel, North Ballroom
PRESIDING
Sheldon B. Cohen, Atlanta

2:00 HUMAN SEXUAL BEHAVIOR
William H. Masters and Mrs. Virginia E. Johnson, St. Louis, Missouri
DISCUSSANTS
James McCranie, Augusta
Charles W. Butler, Atlanta

3:30 PSYCHIATRIC EMERGENCIES IN THE PRACTICE OF MEDICINE
MODERATOR
Merton B. Berger, Atlanta
DISCUSSANTS
Mark Gould, Smyrna
Oscar Vinson, Decatur
Don W. Schmidt, Cedartown

SUNDAY AFTERNOON, APRIL 30

2:00 Pediatric and Radiology Joint Section Meeting
(ALL PHYSICIANS INVITED)
Marriott Hotor Hotel, South Ballroom
PRESIDING
J. Rhodes Haverty, Atlanta

2:00 ABDOMINAL TUMORS IN CHILDREN—CLINICAL ASPECTS
Waldo E. Nelson, Philadelphia, Pennsylvania

3:00 ABDOMINAL TUMORS IN CHILDREN—RADIOLOGICAL ASPECTS
David H. Baker, New York City

4:00 PANEL: ABDOMINAL TUMORS IN CHILDREN —DIAGNOSTIC AND THERAPEUTIC ASPECTS
MODERATOR
J. Rhodes Haverty, Atlanta
PANELISTS
Richard Elmer, Atlanta
Joseph H. Patterson, Atlanta
Gerald T. Zwiren, Atlanta
Miguel A. Bozzini, Atlanta

SUNDAY AFTERNOON, APRIL 30

2:00 Pathology Section Meeting
(ALL PHYSICIANS INVITED)
Marriott Motor Hotel, Tara Suite Salon 1
PRESIDING
Robert E. Perry, Jr., Brunswick

2:00 HEMORRHAGIC DISORDERS
K. M. Brinkhous, Chapel Hill, North Carolina

SUNDAY AFTERNOON, APRIL 30

2:00 Orthopedic Section Meeting
(ALL PHYSICIANS INVITED)
Marriott Motor Hotel, Tara Suite Salon 2
PRESIDING
F. James Funk, Atlanta

2:00 HIP DISLOCATION AND DYSPLASIA IN CEREBRAL PALSY
Thomas E. Whitesides, Atlanta

2:20 EARLY MANAGEMENT OF MUSCOLO-SKELETAL FUNCTION IN SPINA BIFIDA CYSTICA
Floyd E. Bliven, Jr., Augusta

2:40 RECENT ADVANCES IN THE TREATMENT OF SLIPPED FEMORAL EPIPHYSIS
J. William Hillman, Nashville, Tennessee

3:40 SOME EXPERIENCES WITH SURGERY OF HIP FRACTURES, ET CETERA
James M. Kelley, Rome

4:00 BONE TUMORS
Perry M. White, Atlanta

4:20 SKIN COVERAGE IN THE TRAUMATIZED HAND
Grady S. Clinkscales, Jr., Atlanta

4:40 PERIPHERAL NERVE INJURIES IN ORTHOPEDIC SURGERY
Edward C. Loughlin, Jr., Atlanta

SUNDAY AFTERNOON, APRIL 30

2:00 Dermatology Section Meeting
(ALL PHYSICIANS INVITED)
Marriott Motor Hotel, Tara Suite Salon 3
PRESIDING
Hiram M. Sturm, Atlanta

2:00 THE USE OF PATCH TESTS IN THE INVESTIGATION OF ALLERGIC SKIN DISEASES
Silas E. O'Quinn, New Orleans, Louisiana

2:45 VITAMINS IN DERMATOLOGY
Leonard Fishman, Atlanta

3:00 CORTICOSTEROIDS IN DERMATOLOGY
Robert M. Fine, Decatur

3:15 CYTOTOXIC AGENTS IN PSORIASIS
Sidney Olansky, Atlanta

3:30 TREATMENT OF SOME COMMON SKIN LESIONS
Paul C. Cronce, Atlanta

3:45 FLUOROURACIL IN TREATMENT OF DERMATOLOGIC NEOPLASMS
Harry W. Scott and Hiram M. Sturm, Atlanta

4:00 PANEL DISCUSSION
MODERATOR
Hiram M. Sturm, Atlanta

PANELISTS
Silas E. O'Quinn, New Orleans, Louisiana
Leonard Fishman, Atlanta
Robert M. Fine, Decatur
Sidney Olansky, Atlanta
Paul C. Cronce, Atlanta
Harry W. Scott, Atlanta

SUNDAY AFTERNOON, APRIL 30

2:00 Neurosurgery Section Meeting
(ALL PHYSICIANS INVITED)
Marriott Motor Hotel, Tara Suite Salon 4
PRESIDING
Edgar F. Fincher, Atlanta

2:00 STEROID THERAPY OF CEREBRAL EDEMA
Richard A. Smith, Atlanta

2:15 THE TREATMENT OF CENTRAL NERVOUS SYSTEM INJURIES IN THE VIET NAM WAR
John T. Purvis, Birmingham, Alabama

2:30 MIDLINE SPINAL MASSES
Charles E. Dowman, Atlanta

2:45 THALAMOTOMY FOR INTRACTABLE PAIN—RELATIONSHIP BETWEEN LESION SITE AND EFFECT
Takashi Tsubokawa, Atlanta

3:00 EPENDYMOMA: SOME CLINICO-PATHOLOGICAL CONSIDERATIONS
Ernest C. Fokes, Augusta, and Kenneth M. Earle, Washington, D. C.

3:15 DISCUSSION

3:30 INTERMISSION: VIEW EXHIBITS

3:45 BILATERAL CAROTID LIGATION FOR BILATERAL INTERNAL CAROTID ANEURYSMS
Charles Usher, Jr., and Julian K. Quattlebaum, Jr., Savannah

4:00 PHYSIOLOGICAL CHANGES IN THE PERIPHERAL NERVES OF DIABETIC ANIMALS
Marshall B. Allen, Jr., William Mayher, III and James Mimbs, Augusta

4:15 STEREOCEPHALOTOMY FOR CEREBELLAR INTENTION TREMOR
H. Dale Richardson, Atlanta

4:30 FIVE YEAR EXPERIENCE WITH INTRACRANIAL ANEURYSMS
Louis A. Hazouri, Columbus

4:45 NEUROPATHOLOGICAL STUDY OF A CASE OF GANGLIOGLIOMA OF THE CEREBELLUM
Federico E. Marrero, Milledgeville

5:00 CERTAIN INTRACRANIAL TUMORS OF CHILDHOOD
Robert A. Sears, Atlanta

5:15 DISCUSSION

SUNDAY AFTERNOON, APRIL 30

5:00 MAG General Business Session
(ALL MAG AND AUXILIARY MEMBERS AND GUESTS INVITED)
Marriott Motor Hotel, South Ballroom
PRESIDING
Walter E. Brown, Savannah, President Medical Association of Georgia
NOMINATIONS OF OFFICERS AND COUNCILORS
(Announcement of Tellers Committee)

President-Elect
Second Vice President
First District Councilor (To serve until 1970)
First District Vice Councilor (To serve until 1970)
Second District Councilor (To serve until 1970)
Second District Vice Councilor (To serve until 1970)
Third District Councilor (To serve until 1970)
Third District Vice Councilor (To serve until 1970)
Cobb County Medical Society Vice Councilor (Unexpired term of Murl M. Hagood—to run until 1969)
Fulton County Medical Society Councilor (To serve until 1970)
Fulton County Medical Society Vice Councilor (To serve until 1970)
Georgia Medical Society Councilor (To serve until 1970)
Georgia Medical Society Vice Councilor (To serve until 1970)
AMA Delegate (Term beginning January 1, 1968 and expiring December 31, 1969) (For office held by J. W. Chambers)
AMA Alternate Delegate (Term beginning January 1, 1968 and expiring December 31, 1969) (For office held by Neal F. Yeomans)
AMA Delegate (Term beginning January 1, 1968 and expiring December 31, 1969) (For office held by John S. Atwater)
AMA Alternate Delegate (Term beginning January 1, 1968 and expiring December 31, 1969) (For office held by Henry S. Jennings)
Nominations for Awards:
General Practitioner of the Year Award (To be voted on by House of Delegates)

SUNDAY EVENING, APRIL 30

6:00 Delegates and Exhibitors Social Hour
Marriott Motor Hotel, Plantation Suite

SUNDAY EVENING, APRIL 30

RELATED EVENTS
(Not a part of Official Program)

NOTE: Make reservations in advance with Chairman if possible.

6:00 University of Virginia Alumni Social Hour
(To be announced)
Mr. William Booth, of the University Medical Center, will be in Registration area if you wish further details.

6:30 Emory University Medical Alumni Association Social Hour and Dinner
Marriott Motor Hotel, Tara Suite
Charles R. Underwood, Marietta, Chairman

6:30 Medical College of Georgia Alumni Association Social Hour and Dinner
(To be announced)
C. Walter Coolidge, William J. McKenzie, Jr., and Chenault W. Hailey, Atlanta, Co-Chairmen

MONDAY MORNING, MAY 1

RELATED EVENTS
(Not a part of Official Program)

NOTE: Make reservations in advance with Chairman if possible.

8:00 Georgia Diabetes Association Breakfast and Business Meeting
Marriott Motor Hotel, Hickory Hill Room
Edwin C. Evans, Atlanta, Chairman

MONDAY MORNING, MAY 1

9:00 MAG General Business Session and House of Delegates Meeting
(ALL MAG AND AUXILIARY MEMBERS AND GUESTS INVITED)
Marriott Motor Hotel, North Ballroom

8:45 MAG DELEGATES REGISTRATION
North Ballroom Entrance

9:00 GENERAL BUSINESS SESSION
PRESIDING
Walter E. Brown, Savannah, President
Medical Association of Georgia

INVOCATION
Reverend William L. Self, Pastor
Wieuca Road Baptist Church, Atlanta

WELCOME
William W. Moore, Atlanta, President
Fulton County Medical Society

GREETINGS
Honorable Ivan Allen, Mayor
City of Atlanta

OUR ASSOCIATION FUTURE FOR 1967-68
John T. Mauldin, Atlanta, President-Elect
Medical Association of Georgia

REPORT OF THE AUXILIARY
Mrs. James H. Manning, Marietta
President-Elect

MAG MEMORIAL SERVICE

HOUSE OF DELEGATES MEETING
PRESIDING
J. Frank Walker, Atlanta
Speaker of the House

ORDER OF BUSINESS (See Delegates Handbook)

MONDAY MORNING, MAY 1

10:30 MAG GENERAL ASSEMBLY
(ALL MAG AND AUXILIARY MEMBERS AND GUESTS INVITED)
Marriott Motor Hotel, North Ballroom
PRESIDING
Walter E. Brown, Savannah, President
Medical Association of Georgia

10:30 EMERGENCY CARE AND TRANSPORTATION OF THE INJURED
Roswell K. Brown, New York City, Associate Director, American College of Surgeons Field Program in Trauma

11:00 PRACTICAL CONSERVATISM
Mr. William Rusher, New York City
Publisher, *The National Review*

11:30 ABNER W. CALHOUN MEMORIAL LECTURESHIP
REGIONAL MEDICAL PROGRAM ON HEART DISEASE, CANCER, STROKE AND RELATED DISEASES
Robert Q. Marston, Bethesda, Maryland
Associate Director, NIH, and Director, Division of Regional Medical Programs

MONDAY AFTERNOON, MAY 1

RELATED EVENTS
(Not a part of Official Program)

NOTE: Make reservations in advance with Chairman if possible.

1:00 Georgia Society of Internal Medicine, Georgia Chapter American College of Physicians and Georgia Heart Association Luncheon and Business Meeting
Marriott Motor Hotel, Hermitage Suite
W. C. Waters, III, Atlanta, Chairman

1:00 Georgia Chapter, American College of Surgeons Luncheon and Business Meeting
Heart of Atlanta Motel, 255 Courtland Avenue
Charles E. Todd, Atlanta, Chairman

1:00 Georgia State Obstetrical and Gynecological Society Luncheon and Business Meeting
Marriott Motor Hotel
John R. McCain, Atlanta, Program Chairman

12:15 Atlanta Medical Women's Association Luncheon
Marriott Motor Hotel, Tara Suite Salon 5
Martha S. Lovell, East Point, and Elizabeth K. Adams, Atlanta, Co-Chairmen

MONDAY AFTERNOON, MAY 1

2:30 MAG REFERENCE COMMITTEES
Marriott Motor Hotel
Reference Committee No. 1:
Whitehall Suite
Reference Committee No. 2:
Thornwood Suite
Reference Committee No. 3:
Twelve Oaks Suite
Reference Committee No. 4:
Hickory Hill Suite
Reference Committee No. 5:
Stone Mountain Suite

MONDAY AFTERNOON, MAY 1

2:30 Obstetrics and Gynecology Section Meeting
(ALL PHYSICIANS INVITED)
Marriott Motor Hotel, Tara Suite Salon 1 and 2
PRESIDING
Samuel R. Poliakoff, Atlanta

2:30 INDUCTION OF LABOR BY TRANS-ABDOMINAL INTRA-AMNIOTIC INJECTION OF HYPERTONIC SALINE
Ivan A. Backerman and Peter Hydrick, East Point

DISCUSSION
Robert K. Hancock, Atlanta

2:50 DIABETES IN PREGNANCY
William A. Scoggin, Augusta

3:20 COLD CONIZATION OF THE CERVIX (1960-1965)
Willis M. Hendricks, LaGrange
DISCUSSION
George A. Williams, Atlanta

3:40 PUERPERAL AND POSTOPERATIVE CARE OF THE URINARY BLADDER
William F. Mengert, Chicago, Illinois

4:30 THE NORTHSIDE Y.M.C.A. SEX EDUCATION PROGRAM
Mr. William A. Robinson, Atlanta
Joseph L. Girardeau, Atlanta

MONDAY AFTERNOON, MAY 1

2:30 General Practice, Diabetes and Medicine Joint Section Meeting
(ALL PHYSICIANS INVITED)
Marriott Motor Hotel, Tara Suite Salon 3
PRESIDING
Thomas Q. Spitzer, Atlanta

2:30 DIABETES MELLITUS: WHAT IS IT?
John K. Davidson, Toronto, Canada
(To be sponsored by Merck, Sharp and Dohme Postgraduate Program)

3:05 CONGENITAL HEART DISEASE IN THE ADULT
Robert H. Franch, Atlanta

3:30 VIEW EXHIBITS

3:45 MODE OF ACTION OF ANTIBIOTICS
Gordon T. Stewart, Chapel Hill, North Carolina

4:20 CLINICAL SIGNIFICANCE OF ANTINUCLEAR ANTIBODIES
Naomi Rothfield, New York City

MONDAY AFTERNOON, MAY 1

2:30 Chest and Surgery Joint Section Meeting
(ALL PHYSICIANS INVITED)
Marriott Motor Hotel, Tara Suite Salon 4
PRESIDING
William A. Hopkins, Atlanta

2:30 VALVULAR REPLACEMENTS
Donald B. Effler, Cleveland, Ohio

3:00 EXPERIENCE WITH PERCUTANEOUS TRANSHEPATIC CHOLANGIOGRAPHY
John N. McClure, Atlanta

3:30 SURGICAL MANAGEMENT OF RENOVASCULAR HYPERTENSION
Garland D. Perdue, Atlanta

4:00 EVALUATION OF EXPANDING SKIN GRAFTS
J. C. Tanner, Jr., Atlanta

4:30 EXPERIENCE WITH THE SURGICAL TREATMENT OF STROKES
Milton F. Bryant, Atlanta

MONDAY, MAY 1

2:30 Orthopedic Section Meeting
(ALL PHYSICIANS INVITED)
Scottish Rite Hospital, 321 W. Hill Street, Decatur
PRESIDING
Wood W. Lovell, Atlanta

2:30 MANAGEMENT OF THE JUVENILE AMPUTEE
Richard E. King, Atlanta

3:00 CONGENITAL COXA VARA AND THE INNOMINATE OSTEOTOMY
John M. Roberts and Joseph H. Dimon, III, Atlanta

3:30 ORTHOPAEDIC DISORDERS ASSOCIATED WITH DWARFISM
Marvin B. Rothenberg, Atlanta

4:00 CENTRALIZATION OF THE WRIST IN CLUBHAND
Loui G. Bayne, Atlanta

4:30 HALO-FEMORAL TRACTION IN THE TREATMENT OF SEVERE SCOLIOSIS
Wood W. Lovell, Roger Swingle and Charles Hancock, Atlanta

MONDAY EVENING, MAY 1

6:30 FULTON COUNTY MEDICAL SOCIETY SOCIAL HOUR
(ALL MAG MEMBERS AND THEIR WIVES WELCOME)
Marriott Motor Hotel, Ballroom

8:00 MAG PRESIDENT'S BANQUET
Marriott Motor Hotel, Ballroom

TUESDAY MORNING, MAY 2

9:00 MAG General Business Session and House of Delegates Second Meeting
(ALL MAG AND AUXILIARY MEMBERS AND GUESTS INVITED)
Marriott Motor Hotel, North Ballroom

8:45 MAG DELEGATES REGISTRATION
North Ballroom Entrance

GENERAL BUSINESS SESSION
PRESIDING
Walter E. Brown, Savannah, President Medical Association of Georgia

PRESENTATION OF 50 YEAR CERTIFICATES
George H. Alexander, Forsyth
Immediate Past President
Medical Association of Georgia

PRESENTATION OF SCIENTIFIC EXHIBIT AWARDS
John N. McClure, Atlanta, Chairman
Scientific Awards Committee

PRESENTATION OF GENERAL PRACTITIONER OF THE YEAR AWARD
Robert D. Mainor, Smyrna, President
Georgia Academy of General Practice

PRESENTATION OF MAG CERTIFICATES OF APPRECIATION
J. Rhodes Haverty, Atlanta, Secretary
Medical Association of Georgia

PRESENTATION OF HARDMAN AWARD
John T. Mauldin, Atlanta, President-Elect
Medical Association of Georgia

PRESENTATION OF MAG DISTINGUISHED SERVICE AWARD
Walter E. Brown, Savannah, President
Medical Association of Georgia

PRESENTATION TO MEDICAL ASSOCIATION OF GEORGIA
Mr. Maurice Stevenson, Medicare Administrator in Georgia for John Hancock Mutual Life Insurance Company

SELECTION OF SITE FOR MAY 1969 ANNUAL SESSION

ANNOUNCEMENT OF MAG ELECTION RESULTS
Chairman, Tellers Committee

INSTALLATION OF 1967-1968 OFFICERS
Walter E. Brown, Savannah
Immediate Past President
Medical Association of Georgia

HOUSE OF DELEGATES SECOND MEETING
PRESIDING
J. Frank Walker, Atlanta
Speaker of the House

ORDER OF BUSINESS
(See Delegates Handbook)

ADJOURNMENT OF THE HOUSE

ADJOURNMENT OF 113TH ANNUAL SESSION

1967 CALENDAR OF MEETINGS

State

March 16-17—Seminar in Obstetrics and Gynecology sponsored by the University of Florida College of Medicine, Gainesville, Fla.

March 17—Regional Meeting of Psychosomatic Medicine and Seminar on "Psychomatic Aspects of Gastrointestinal Disease," sponsored by the University of Florida College of Medicine, Gainesville, Fla.

March 21-22—"Rheumatic Diseases," sponsored by the Department of Continuing Education of the Medical College of Georgia, Augusta.

March 24-25—Seminar on Tropical Disease sponsored by the University of Florida College of Medicine, Gainesville, Fla.

April 1-2—Seminar on Management of Arthritis and Rheumatic Diseases, George Washington Hotel, Jacksonville, Fla.

April 3-7—Fortieth Annual Spring Congress in Ophthalmology and Otolaryngology sponsored by the Gill Memorial Eye, Ear, and Throat Hospital, Roanoke, Va.

April 6-7—"Auscultation of the Heart, Phonocardiography and Pulse Tracings," offered by the Institute for Cardiovascular Diseases, Good Samaritan Hospital, Phoenix, Arizona. Program to be held at the Mountain Shadows Resort, Scottsdale.

April 6-8—Annual Meeting of the Georgia Society of Ophthalmology and Otolaryngology, Holiday Inn, Callaway Gardens, Pine Mountain, Ga.

April 10-22—Course in Laryngology and Bronchoesophagology sponsored by the Department of Otolaryngology of the Illinois Eye and Ear Infirmary and the College of Medicine of the University of Illinois, Medical Center, Chicago.

April 13-14—Obstetrics and Gynecology Seminar sponsored by the University of Florida College of Medicine, Gainesville, Fla.

April 20-21—"The Adrenals in Health and Disease," sponsored by the Department of Continuing Education of the Medical College of Georgia, Augusta.

April 30-May 1-2—113th Annual Session of the Medical Association of Georgia, Marriott Motor Hotel, Atlanta.

May 1-5—A Five Day Refresher Course in Pediatrics for Pediatricians and General Practitioners, sponsored by the Children's Hospital of Philadelphia and the Department of Pediatrics, School of Medicine, University of Pennsylvania, Philadelphia, Pa. AAGP accredited for 27 hours.

May 2-3—Postgraduate Conference "Hypertension in Pregnancy," sponsored by Emory University School of Medicine, GYN-OB Dept., Grady Hospital Auditorium, Atlanta.

May 4-7—One Hundredth Texas Medical Association Annual Session, Dallas.

May 15-18—Program of the Fourth Post-Graduate Course, "Fractures and Other Injuries," sponsored by the Committee on Injuries of the American Academy of Orthopaedic Surgeons, Riviera Motor Hotel, Atlanta.

National

June 18-22—American Medical Association Annual Convention, Atlantic City, N.J.

May 3—1967 Scientific Session of the American Cancer Society, Sheraton-Dallas Hotel, Dallas, Tex.

June 5-7—A continuation course in "Clinical Electroencephalography," sponsored by the American EEG Society, Philadelphia, Pa.

MEDICAL COLLEGE OF GEORGIA PRESENTS COURSE ON ADRENALS

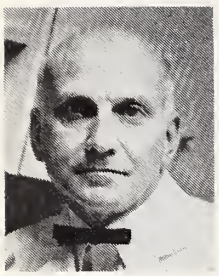
"The Adrenals Revisited," a postgraduate course in continuing education, will be presented at Augusta, Georgia, April 20 and 21, 1967, at the Medical College of Georgia. This course for physicians is designed to present current concepts on the recognition and management of diseases and therapeutics involving the adrenal glands. Emphasis is placed on physiological and pathophysiological mechanisms in order to provide this important information to medical practitioners for their use in making clinical decisions. Dr. Nicholas P. Christy of New York; Dr. A. Carl Crooke of Birmingham, England; Dr. Henry Dolger of New York; Dr. Raymond V. Randall, Rochester, Minnesota; and Dr. Hans Selye of Montreal, Canada, will join members of the faculty of the Medical College of Georgia in the presentation of this course which is coordinated by Dr. Robert B. Greenblatt. Registration fee is $30.00.

"THE MEDICAL UNITS 'PLANNING GUIDE'" AND "THE BUSINESS SIDE OF MEDICAL PRACTICE" AVAILABLE TO GEORGIA DOCTORS

For the fourth consecutive year, the Medical Association of Georgia is offering to the doctors of Georgia the American Medical Association-Sears, Roebuck Foundation, Inc. booklets entitled, "The Business Side of Medical Practice," and "The Medical Units 'Planning Guide.'" The material is free of charge and either or both may be obtained by writing to the *MAG Headquarters Office, 938 Peachtree St., N.E., Atlanta, Ga. 30309.*

Each booklet, constructed of heavy vellum stock, measures approximately 12″ × 9″ and contains charts, graphs, illustrations, floor plans, etc. Both are made for easy handling and make a nice addition to a doctor's office library.

GUEST SPEAKERS



WILLIAM HOWELL MASTERS, M.D.

St. Louis, Missouri

WILLIAM HOWELL MASTERS, M.D., Director of the Reproductive Biology Research Foundation, St. Louis, Missouri, will open one of the first Scientific Sessions of the 113th Annual Session of the Medical Association of Georgia.

Dr. Masters received his medical degree from the University of Rochester School of Medicine and Dentistry. He interned at St. Louis Maternity in Obstetrics and Gynecology, Barnes Hospital in Internal Medicine, and at the Washington University School of Medicine in the Department of Pathology. He served residencies at St. Louis Maternity and the Barnes Hospital. He has served on the faculty of the Washington University School of Medicine, in varying capacities, since 1947. He is a member of the American College of Obstetrics and Gynecology, the Society for the Scientific Study of Sex, the American Association for the Advancement of Science, the International Society for Comprehensive Medicine, and the Pan-American Medical Association. Dr. Masters is on the Board of Directors of Family and Children's Service, the Planned Parenthood Association, and the Health and Welfare Council.

Dr. Masters, along with his Research Associate, Mrs. Virginia E. Johnson, will make his presentation, "Human Sexual Behavior," at 2:00 P.M., Sunday, April 30, 1967, to the Psychiatry, Obstetrics and Gynecology, General Practice, and Public Health Joint Section Meeting.

MRS. VIRGINIA E. JOHNSON

St. Louis, Missouri

MRS. VIRGINIA E. JOHNSON, St. Louis, Missouri, is a graduate of Missouri University, Columbia, Missouri. Mrs. Johnson has worked for the *St. Louis Daily Record*, where she instituted and wrote a series of articles on economic and cultural contributions of St. Louis-owned and/or operated industries, and for the Columbia Broadcasting System (KMOX), St. Louis.

She has worked with the Washington University School of Medicine, Division of Reproductive Biology, Department of Obstetrics and Gynecology since 1957. She received her doctorate from Washington University in 1964, and is presently Research Associate with the Reproductive Biology Research Foundation. Mrs. Johnson is a Member, Board of Directors, Family and Children's Service of Greater St. Louis, and a Fellow of the Society for the Scientific Study of Sex.

Mrs. Johnson, in conjunction with Dr. William Masters, will make the presentation, "Human Sexual Behavior," at 2:00 P.M., Sunday, April 30, 1967, to the Psychiatry, Obstetrics and Gynecology, General Practice, and Public Health Joint Section Meeting.

WALDO EMERSON NELSON, M.D.

Philadelphia, Pennsylvania

WALDO EMERSON NELSON, M.D., is presently Professor of Pediatrics, Woman's Medical College of Pennsylvania, Philadelphia. He received his medical degree from the University of Cincinnati, and served his internship at Cincinnati General Hospital, and his residency at the University of Cincinnati, Department of Pediatrics (Children's Hospital, Cincinnati General). He has served on the faculty of both the University of Cincinnati and Temple University School of Medicine. He is a member of the American Board of Pediatrics, the American Pediatric Society, and the Society for Pediatric Research. He is the author of *Textbook of Pediatrics*, now in its eighth edition, and in 1959 was the Editor of the *Journal of Pediatrics*.

Dr. Nelson will present his paper, "Abdominal Tumors in Children—Clinical Aspects," to the Pediatric and Radiology Joint Section Meeting at 2:00 P.M. Sunday, April 30, 1967.

A brief abstract of his paper follows:

> Abdominal tumors of neoplastic and other origin usually become evident as an abnormal mass, less often by other clinical manifestations, such as vomiting, gastrointenstinal bleeding and abdominal pain.
>
> The differential diagnosis of some of the more important clinical entities will be discussed and suggestions made for therapeutic management.

DAVID HUNTINGTON BAKER, M.D.

New York City

DAVID HUNTINGTON BAKER, M.D., is presently Consultant in Pediatric Radiology at Memorial Hospital, New York City, and Associate Professor of Radiology and Pediatrics, Columbia University College of Physicians and Surgeons. He received his degree in medicine from Boston University School of Medicine, and served residencies in Pediatrics and Radiology at Cornell Medical Center's New York Hospital. He is a member of the American College of Pediatrics, the American College of Radiology, the Society of Pediatric Radiology, and the Association of University Radiologists.

Dr. Baker's presentation will be made on Sunday, April 30, 1967, at 3:00 P.M. to the Pediatric and Radiology Joint Section Meeting. A summary of, "Abdominal Tumors in Children—Radiological Aspects," follows:

Masses may present with or without symptoms, hence history is helpful in the differential diagnosis. A sick anemic child with bone pain-neuroblastoma is much more common than any other neoplasm, save leukemia. Well child with tumor is classic for Wilms tumor. Once mass is clinically picked up, roentgen examination proceeds with plain films of the abdomen and chest, looking for tumor calcifications, displacement of loops, bone involvement and the chest for metastases and fluid. Calcium in mass usually means neuroblastoma. Pulmonary pleural metastases are seen with Wilms as well as neuroblastoma. Widening of paravertebral pleural reflection usually means neuroblastoma.

The next study to be performed is an Intravenous Pyelogram. Also, an IV cavogram can precede the IVP by injection in the foot vein. There will be discussion of spurious factors of pseudo-obstruction of cava leading to erroneous impression of tumor obstruction.

Rare renal lesions and other conditions mimicking Wilms: retroperitoneal hygroma (actually benign mesodermal tumor), duplicating renal system with partial hydronephrosis, and the value of the nephrogram. Rare malignant mesonephric tumors, nonresponsive to radiotherapy, will be discussed.

KENNETH MERLE BRINKHOUS, M.D.

Chapel Hill, North Carolina

KENNETH MERLE BRINKHOUS, M.D., of Chapel Hill, North Carolina, received his medical degree from the State University of Iowa, and his internship and residency were also served there. He is presently Alumni Distinguished Professor of Pathology, and Chairman of the Department of Pathology of the University of North Carolina, Chapel Hill. He is a Diplomate of the American Board of Pathology, and a member of the American Society of Clinical Pathologists, the American Association for Advancement of Science, and the Federation of American Societies for Experimental Biology for which he served as Vice-President in 1965-66, and will serve as President in 1966-67.

Dr. Brinkhous' scientific presentation will be made to the Pathology Section Meeting at 2:00 P.M., Sunday, April 30, 1967. Outlined briefly below is:

"Hemorrhagic Disorders"

Current concepts of fibrin and cellular clotting will be reviewed, combined with a consideration of recent advances in the laboratory control and treatment of hemorrhagic disorders.

J. WILLIAM HILLMAN, M.D.

Nashville, Tennessee

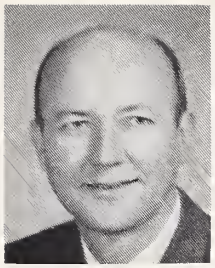
J. WILLIAM HILLMAN, M.D., Professor and Chairman of the Department of Orthopedic Surgery, Vanderbilt University School of Medicine, Nashville, Tennessee, received his medical degree from the Johns Hopkins University School of Medicine. He served his internship and residency at the Johns Hopkins Hospital, Baltimore, and is Certified by the American Board of Orthopaedic Surgery. He is a member of the Clinical Orthopaedic Society, the International Society of Orthopaedic Surgery and Traumatology, and the American Academy of Cerebral Palsy.

His scientific presentation will be given Sunday, April 30, 1967, at 2:40 P.M. to the Orthopedic Section Meeting. A summary follows:

"Recent Trends in the Treatment of Slipped Upper Femoral Epiphysis"

The indications for surgical reconstruction of the deformity of slipped upper femoral epiphysis are usually divided between a compensatory osteotomy with fixation at a point remote from the lesion or more directly into the area of the lesion. Each approach has its advocates and advantages; however, there are the drawbacks of possible interference with the nutrition of the femoral head or its articular covering.

In early cases, where deformity is minimal, the possibility of arrest of the natural course of events is evidently important. Studies have been carried out in the laboratory and in a small selected series of patients in which hormone treatment has been used both with and without supplementary internal fixation. This report is primarily concerned with the results of early treatment. The recent report of Fahey on the remodeling capability of the upper femoral deformity when fixed *in situ* may be of great interest in this connection.



SILAS E. O'QUINN, M.D.

New Orleans, Louisiana

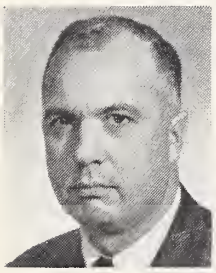
SILAS E. O'QUINN, M.D., Associate Professor and Head of the Department of Dermatology, Louisiana State University School of Medicine, will present his paper to the Dermatology Section Meeting on Sunday, April 30, 1967, at 2:00 P.M. A summary follows:

"The Use of Patch Tests in the Investigation of Allergic Skin Diseases"

Allergic contact dermatitis is a common dermatologic problem. Some new and interesting causes of contact dermatitis include sensitization to compounds used in the finishing of clothing fabrics (clothing dermatitis), to the various materials used in the manufacture of shoes (shoe dermatitis) and to antibacterial compounds that are commonly added to soaps and cosmetics (photo-contact dermatitis). The clinical characteristics of these conditions and practical test procedures useful in their diagnosis will be discussed.

The question of whether or not and when to patch test the patient who is being treated with systemic corticosteroids is often a puzzling and practical problem. Recent experimental work relating experiences in patch testing patients on varying doses of systemic corticosteroids will be discussed.

Dr. O'Quinn received his medical education at the University of Michigan Medical School, and served his internship at Charity Hospital, New Orleans, and his residency at Charity Hospital, Monroe, Louisiana. He is a member of the New Orleans Graduate Medical Assembly, the International Congress of Dermatology, and a Fellow of the Society of Investigative Dermatology.



JOHN TAYLOR PURVIS, M.D.

Birmingham, Alabama

JOHN TAYLOR PURVIS, M.D., Birmingham, Alabama, is a graduate of the University of Tennessee College of Medicine. He served his internship at the Royal Victoria Hospital of McGill University at Montreal, Quebec, Canada, and his residency at the University of Virginia Hospital, Charlottesville, Virginia. Dr. Purvis was Chief, Neurological Surgery, USAF Hospital, Wright-Patterson AFB, Ohio, from 1961-1965, and Chief, Neurological Surgery, USAF Hospital, Clark Air Base, Philippine Islands, 1965-1966. He is a member of the Congress of Neurological Surgeons, the Harvey Cushing Society, and the Society of Air Force Clinical Surgeons. Dr. Purvis' scientific presentation, "Missile Injuries of the Central Nervous System from the Viet Nam Conflict," will be given to the Neurosurgery Section Meeting at 2:15 P.M., Sunday, April 30, 1967. An abstract follows:

This paper is concerned with the principal injuries of the central nervous system, the brain and the spinal cord. Treatment of these injuries and the principles behind these injuries will be discussed. The complications of missile injuries of the central nervous system will also be discussed as well as the handling of these complications. The major improvements in treatment have been in the area of faster transportation from battle zone to hospital and the improved use of antibiotics as well as improved methods of handling increased intracranial pressure. Knowledge gained in the treatment of these injuries can very well be used in the treatment of civilian injuries.

WILLIAM F. MENGERT, M.D.

Chicago, Illinois

WILLIAM F. MENGERT, M.D., Chicago, Illinois, received his degree in medicine from Johns Hopkins Medical School, Baltimore. He served his internship and residency in the University Hospitals, Iowa City, Iowa, and was a Fellow in Gynecologic Research, Gynecologic Institute for Gynecologic Research, University of Pennsylvania. He is currently Professor and Head of the Department of Obstetrics and Gynecology, University of Illinois at the Medical Center, Chicago. He is a Fellow in the American College of Obstetricians and Gynecologists, serving as President in 1954-55; the American Association of Obstetricians and Gynecologists, which he served as President in 1957-58; and the American Gynecological Society.

Dr. Mengert will present his paper, "Puerperal and Postoperative Care of the Urinary Bladder," at the Obstetrics and Gynecology Joint Section Meeting at 3:40 P.M., Monday, May 1, 1967. Following is an abstract:

Women seem to have more difficulty voiding postoperatively than men. Many factors play a part in etiology. Probably the most important are the attitudes of nurse, doctor and above all the patient. She could be easily conditioned and encouraged if nurse and physician did not feel in advance of the event that spontaneous voiding is unlikely. A contributing factor is the relative ease of catheterization of a woman as compared to a man. No male is his right senses will permit catheterization if there is a reasonable alternative. The anatomic juxtaposition of urinary and genital tracts in the female does not seem to play a significant role in the etiology of frequency of catheterization of women. The dangers of catheterization are considerable. In our series almost twice the amount of gross urinary tract infection was found in catheterized women postoperatively as in those voiding spontaneously. It would seem that most women can be induced to void spontaneously following operation if they are properly encouraged.

JOHN K. DAVIDSON, M.D.

Toronto, Canada

JOHN K. DAVIDSON, M.D., is presently Associate Professor in Physiology, and Internal Medicine, and Attending Physician, Toronto General Hospital, Toronto, Canada. A graduate of Emory University School of Medicine, Dr. Davidson served his internship and a residency in Internal Medicine at Grady Memorial Hospital and Emory University Hospital, Atlanta. A further residency was served at New England Center Hospital, Boston, and from 1951-1960, he was in private practice in Columbus, Georgia. Dr. Davidson was a Research Fellow, American Diabetes Association, from 1961-65. He is a Diplomate of the National Board of Medical Examiners, is certified by the American Board of Internal Medicine, and is a Fellow of the American College of Physicians. Dr. Davidson's scientific presentation will be made Monday, May 1, 1967, at 2:30 P.M. to the General Practice, Diabetes and Medicine Joint Section Meeting. A summary of "Diabetes Mellitus: What Is It?" follows:

The beta cell mass of normal human adults weighs about one gram and contains about 16 mg. or 400 units stored insulin. About 10% of the insulin is secreted during each 24 hour period and is replaced by newly-synthesized insulin. When the beta cell mass is stressed by chronic administration of large substrate loads, obesity, pregnancy, or the presence of abnormal levels of hormones that increase the metabolic need for insulin, secretion and synthesis of insulin is increased and the beta cell mass may undergo limited hyperplasia. When the beta cell mass is too small to secrete enough insulin to sustain optimal tissue anabolic activity in a given individual, diabetes mellitus results.

GORDON T. STEWART, M.D.

Chapel Hill, North Carolina

GORDON T. STEWART, M.D., Chapel Hill, North Carolina, is a medical graduate of the University of Glasgow, Scotland. He is currently Professor of Epidemiology and Pathology, Schools of Medicine and Public Health, University of North Carolina. He was formerly Head of the Division of Pathology and Research at Queen Mary's Hospital and member of the research staff at Medical Research Council Laboratories, Carshalton, England. His main interest is infectious diseases and chemotherapy, and he is the author of a book and many articles in medical and scientific journals on this subject.

Dr. Stewart will present his paper, "Mode of Action of Antibiotics," to the General Practice, Diabetes and Medicine Joint Section Meeting at 3:45 P.M., Monday, May 1, 1967. Following is an abstact:

Antibiotics can be conveniently classified into those affecting (a) the cell wall or cell membrane or (b) the cell substance of bacteria. Those in category (a) are usually bactericidal whereas those in category (b) are bacteriostatic. Underlying these structural loci of action are a considerable range of biochemical interferences with biosynthetic, enzymatic and reproductive processes. Understanding of these mechanisms is of more than fundamental scientific significance, for it throws light on therapeutic activity, resistance and toxicity, and therefore upon the rational use of antibiotics in practice.

NAOMI FOX ROTHFIELD, M.D.

New York City

NAOMI FOX ROTHFIELD, M.D., was graduated from the New York University School of Medicine in 1955 and interned at Lenox Hill Hospital in New York City. The next few years were spent as a Fellow of the Rheumatic Diseases Study Group at the New York University Medical Center. Since 1964, she has been an Assistant Professor of Medicine at the Medical Center, and since 1964, she has been a Clinical Scholar of The Arthritis Foundation. In September 1968, she will become Associate Professor of Medicine at the University of Connecticut Medical School. She is married to Dr. Lawrence I. Rothfield and has four children.

Dr. Rothfield's scientific presentation will be given at 4:20 P.M., Monday, May 1, 1967, to the General Practice, Diabetes and Medicine Joint Section Meeting. A summary of "Clinical Significance of Antinuclear Antibodies," follows:

The diagnostic significance of antinuclear antibodies, ANF, will be discussed in relation to the pattern of nuclear fluorescence and the class of immunoglobulin ANF present in SLE, rheumatoid arthritis, scleroderma, discoid lupus and other collagen diseases.

The three most commonly occurring patterns of nuclear fluorescence are the speckled pattern, the peripheral or "shaggy" pattern, and the diffuse pattern. The relation of these patterns to complement fixing antibodies to DNA and nucleoprotein will be discussed. The relation of the presence of the peripheral pattern in SLE sera to disease activity and complement fixing antibodies to DNA will be described. In rheumatoid arthritis, the IgM ANF is more frequently present than IgG; in systemic lupus, IgG ANF is most common while in systemic sclerosis, both IgG and IgM occur with similar frequency.

DONALD BRIAN EFFLER, M.D.

Cleveland, Ohio

DONALD BRIAN EFFLER, M.D., Cleveland, Ohio, received his medical degree from the University of Michigan Medical School. He interned at Mercy Hospital, Toledo, Ohio, and trained at Walter Reed General Hospital, Gallinger Municipal Hospital, and George Washington University Medical School, Washington, D.C.; The Hospital of the Good Samaritan and Children's Hospital, Los Angeles; and the Cleveland Clinic Foundation, Cleveland, Ohio. He is presently Chief of the Department of Thoracic and Cardiovascular Surgery of the Cleveland Clinic Foundation. He is a member of the American Association for Thoracic Surgery, the American Surgical Association, and the American College of Surgeons.

Dr. Effler's scientific presentation, "Valvular Replacements," will be made on Monday, May 1, 1967 at 2:30 P.M. to the Chest and Surgery Joint Section Meeting. Following is an abstract:

> Since 1961, over 985 prosthetic valves have been inserted in the Cleveland Clinic Hospital. The replacements vary from single to double, and a rare triple replacement.
>
> The indications for prosthetic valve replacement, particularly of the aortic and mitral valves, will be discussed in detail. The technical aspects of valve replacement are also covered briefly. The immediate and late complications will be dealt with as in particular reference to embolic accidents attributable to the prosthetic devices.

ROSWELL K. BROWN, M.D.

New York City

ROSWELL K. BROWN, M.D., New York, is the Associate Director of Field Program, Committee on Trauma of the American College of Surgeons.

Previous to taking this position, Dr. Brown was assistant dean, co-ordinator of medical education for national defense, and clinical professor of surgery at the University of Buffalo School of Medicine. He was consulting surgeon at both the Meyer Memorial and Children's Hospitals, and senior surgeon at the Buffalo General. After receiving his doctorate in medicine from Cornell University in 1926, Dr. Brown from 1927 through 1934 continued his training at the Roosevelt Hospital in New York, and at the Kennedy Hospital in Tripoli, Lebanon. Also during these years he was in Vienna from time to time for study.

Among the societies to which Dr. Brown belongs are the Southeastern Surgical Congress, of which he is an honorary fellow; Society of Medical Consultants to the Armed Forces; and the American Association for the Surgery of Trauma. He was admitted to Fellowship in the A.C.S. in 1933; certified by the American Board of Surgery, 1944.

In World War II Dr. Brown served on the Desert Warfare Board; as surgeon, Second Civil Affairs Regiment; chief, surgical service, 165th General Hospital; and surgical consultant, Normandy Base. He was commanding officer, 338th General Hospital Reserve, from 1950 to 1956.

His contributions to the literature include articles on hernia, hand fractures, and pediatric surgery.

Dr. Brown will make his presentation to the MAG General Assembly on Monday, May 1, 1967, at 10:30 A.M. An abstract of "Emergency Care and Transportation of the Injured," follows:

> There were 2420 deaths from accidental injury in Georgia in 1965. No one knows how many of them could have been avoided by proper immediate care.
>
> There are many different types of ambulance organizations in the United States, including morticians, volunteers, fire and police departments, municipal services, commercial companies and hospitals.
>
> Deficiences in ambulance care are related to poor organization, untrained and/or unwilling personnel, faulty vehicles, inadequate equipment and lack of intelligent communications.
>
> An active interest on the part of hospital authorities and practicing surgeons is needed.
>
> Each community should have regular meetings of an *Emergency Care Council* which consists of important individuals who are in positions of power, representing ambulance services, hospitals, the police, the fire department, the Red Cross, the medical society, the local unit of the Safety Council and the Health Department.
>
> Emergency ambulance services must be available on short notice *at all times* with *central dispatch* by officers trained and competent in first aid.
>
> Attendants should be *mature, competent* and *devoted* to the immediate care of the sick and injured. There should be at least two on each emergency call. All attendants should have the equivalent of advanced Red Cross training and also competence in cardio-pulmonary resuscitation, transportation of the emotionally disturbed and emergency childbirth.
>
> Patients must be managed carefully and considerately without delay and without haste. *Before each patient is moved emergency care must be given.* This may include reassurance and establishment of confidence, rescue breathing, manual heart compression, oxygen administration, control of external bleeding, sterile dressings on wounds and burns, splinting of fractures and special care for possible neck and back injuries.
>
> *Coordination of care with the hospital emergency department* is essential. During calls the crews should be in communication with the dispatcher and the hospital emergency department. Upon delivery of each patient they should make an accurate report orally and in writing, including:
>
> Identity of the patient
> Time and place of pick-up
> Patient's condition when first seen
> Management
> Significant changes in the patient's condition
>
> The ambulance vehicle should provide privacy, smooth loading and unloading and gentle riding. There should be sufficient room for attendants to work on

the patient during transit. The patient compartment should have good illumination under the control of the attendant and protection from extremes of heat and cold. The interior should be fire and chemical resistant.

The *equipment* of all emergency ambulances should include litters, splints, dressings, bedding and record forms and all the items on the list of Minimal Equipment for Ambulances as approved by the Committee on Trauma of the American College of Surgeons in January, 1966. Items of equipment must stay with the patient as long as needed; discomfort or pain or injury must never be risked in order to return equipment to ambulances.

WILLIAM A. RUSHER

New York, New York

One of America's finest public speakers and deadliest debaters, WILLIAM A. RUSHER has been for over a decade a popular attraction at meetings of civic, academic and political organizations. Widely known for his many radio and television appearances, Mr. Rusher is generally conceded to be one of the most persuasive and knowledgeable advocates of the conservative position in America today.

At 43, Mr. Rusher is well into his third successful civilian career—as Publisher of *National Review,* America's leading journal of conservative opinion.

Mr. Rusher came to *National Review* in 1957 from the Internal Security Subcommittee of the United States Senate—the body charged by the Senate with the investigation of domestic Communism. As Associate Counsel to the Subcommittee, Mr. Rusher took part in hundreds of hearings, and travelled widely in this country and abroad on Subcommittee business.

Before going to Washington, Mr. Rusher—a graduate of Princeton's School of Public and International Affairs and the Harvard Law School, and since 1949 a member of the New York Bar—practiced law with Shearman & Sterling & Wright, Wall Street's largest law firm.

As a speaker and debater, and on survey trips for the American-African Affairs Association and other groups, Mr. Rusher has travelled on five continents to almost every country in the non-Communist world. He brings to his lectures the depths of experience and the wealth of information with which these trips have supplied him.

Mr. Rusher served as an Air Force Captain in India during World War II. He now resides in New York City.

Mr. Rusher will speak to the MAG General Assembly on Monday, May 1, 1967, at 11:00 A.M. His topic will be "Practical Conservatism."

ROBERT Q. MARSTON, M.D.

Bethesda, Maryland

Delivering the Abner W. Calhoun Memorial Lectureship to the MAG General Assembly will be ROBERT Q. MARSTON, M.D., Associate Director of the National Institutes of Health, and Director, Division of Regional Medical Programs, Bethesda, Maryland. Dr. Marston will speak on the "Regional Medical Program on Heart Disease, Cancer, Stroke and Related Diseases," at 11:30 A.M., Monday, May 1, 1967.

Dr. Marston received his medical education from the Medical College of Virginia, Richmond, Virginia, and was a Rhodes Scholar, 1947-49. He interned at Johns Hopkins University, Baltimore, and served residences at Vanderbilt University Hospital, Nashville, Tennessee, and the Medical College of Virginia. He has been Assistant Professor of Bacteriology and Immunology, University of Minnesota, Minneapolis; Associate Professor of Medicine and Assistant Dean in Charge of Student Affairs, Medical College of Virginia; and Vice Chancellor, The University of Mississippi, and Dean, School of Medicine, Jackson, Mississippi.

Dr. Marston is a member of the Association of American Medical Colleges, the American Federation for Clinical Research, and the American Association for the Advancement of Science.

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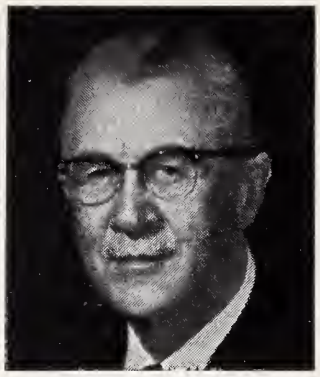

WALTER E. BROWN
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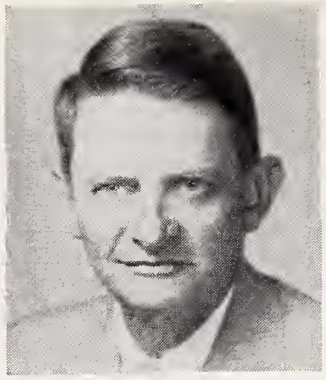
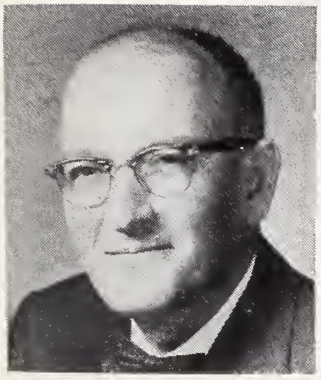


JOHN T. MAULDIN
President-Elect



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Preston D. Ellington, Augusta	(12-31-68)

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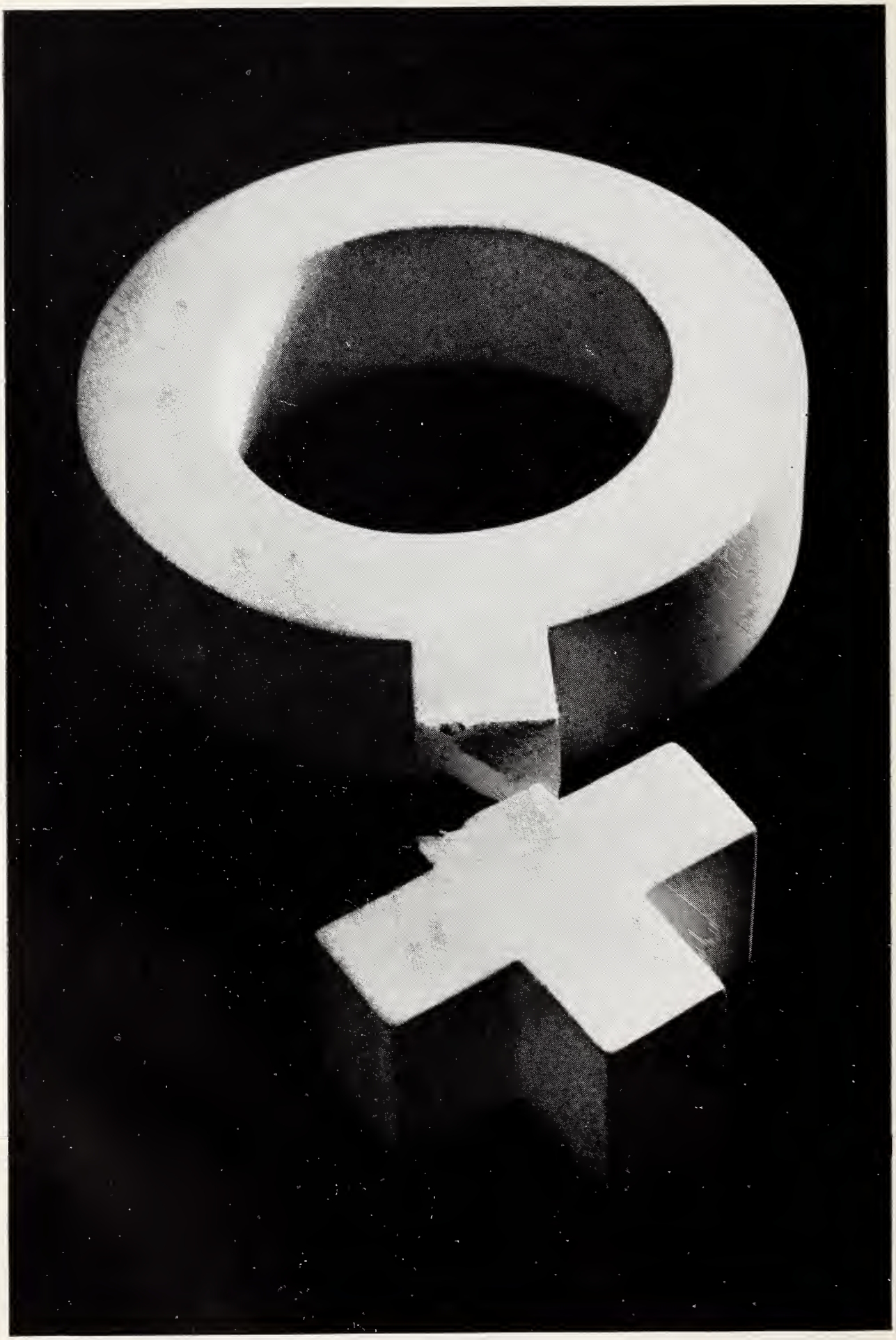
Emory University Clinic
Atlanta



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estrogen replacement therapy

for the menopausal syndrome and female hypogonadism. Novestrol, a pure synthetic estrogen derivative, is related to estradiol which is the primary hormone of the ovarian follicle. It is effective orally and has all the actions of naturally occurring estrogen.

Ethinyl estradiol is the most active estrogen known. In addition to its high potency, Novestrol offers patients the advantages of minimal side effects, low cost, and convenience. Usually only a single daily dose is necessary.

Description: Each green, sugar-coated tablet contains 0.02 mg. of ethinyl estradiol U.S.P., a pure synthetic estrogen derivative, the most active estrogen known.
Indications: Menopausal syndrome and female hypogonadism.
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Precautions: Examine patients for mammary or reproductive system neoplasm. Give with great care, if at all, to patients who have precancerous lesions or family history of cancer.

Prolonged administration or high doses may produce anterior pituitary suppression. Endometrial bleeding can usually be avoided by cyclic administration at lowest effective dose and addition of progesterone during last half of cycle. Endometrial hyperplasia may develop in spite of cyclic therapy.
Side Effects: Occasional gastrointestinal disturbances, headache and vertigo. These usually disappear following proper dosage reduction.
Dosage and Administration: Determine minimum effective dose and maintain only as long as necessary.

Menopausal Syndrome: One or two tablets (0.02 or 0.04 mg.) daily. Omit therapy one week each month. Repeat cyclic therapy until satisfactory response is obtained. Advise patient that vaginal bleeding may occur.

Female Hypogonadism: Two tablets (0.04 mg.) one to three times daily for two weeks followed by progesterone for two weeks. Continue cyclic therapy for 3-6 months; then withdraw therapy to determine if normal cycle will be instituted. Additional cyclic therapy may be required in some patients.

WILLIAM H. RORER, INC. Fort Washington, Pa.

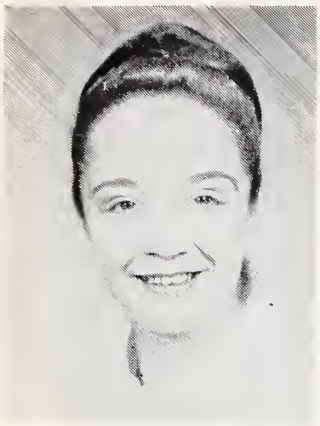
RORER

WOMAN'S AUXILIARY MEDICAL ASSOCIATION OF GEORGIA

42nd ANNUAL MEETING

April 30-May 1-2, 1967

Atlanta, Georgia



PRESIDENT'S INVITATION

THE WOMAN'S AUXILIARY to the Medical Association of Georgia takes great pleasure in welcoming you to this, the 42nd Annual Meeting. We cordially invite you to attend the business and social events planned. We hope that they will be both pleasurable and meaningful to each of you.

Mrs. John A. Meier
President
Woman's Auxiliary to MAG

WELCOME TO ATLANTA

THE FULTON COUNTY MEDICAL AUXILIARY hopes that the 42nd Annual Meeting of the Woman's Auxiliary to the Medical Association of Georgia will be the best ever, and that each of you will be glad you came. We are.

Mrs. F. James Funk, Jr.
President, Woman's Auxiliary to the
Fulton County Medical Society

Rules to Govern the Convention

1. The voting body of the convention shall consist of the members of the Executive Board of the Woman's Auxiliary to the Medical Association of Georgia and the duly accredited delegates from the county auxiliaries. No one is entitled to vote until registered.
2. To gain recognition, a delegate is requested to rise, address the chair, give her name and the name of her auxiliary.
3. No delegate shall speak more than twice on the same subject, and is limited to two minutes each time.
4. Badges must be worn by members of the voting body during all general sessions of the convention.
5. Delegates' privileges are not transferable.
6. All motions shall be presented in writing to the Recording Secretary. They shall be signed by persons making and seconding the motion.
7. All original motions on resolutions shall be made by submitting two copies, one to the Resolution Committee and one to the Recording Secretary.
8. All persons appearing on the program must be seated near the platform when the session opens.

Whispering greatly retards the business of the meeting. Order must be maintained at all times. Please be prompt. Meetings will begin promptly at the time announced.

THE PROGRAM

SUNDAY, APRIL 30

10:00 to 3:30 Registration and Information
The Hermitage Foyer
Marriott Motor Hotel
HOSPITALITY AND EXHIBITS,
The Wren's Nest, Marriott

11:30 Pre-Convention Executive Board Meeting—Dutch Luncheon (Twelve Oaks Room, Marriott)
PRESIDING—Mrs. John A. Meier, Albany, *President,* Woman's Auxiliary to MAG
INVOCATION—Mrs. Jack B. Lindley, Augusta, *President,* Woman's Auxiliary to Richmond County Medical Society
PLEDGE OF LOYALTY AND COLLECT —Mrs. James H. Manning, Marietta, *President-Elect,* Woman's Auxiliary to MAG

2:00 MAG Scientific Session (North Ballroom, Marriott)
"HUMAN SEXUAL BEHAVIOR"—William H. Masters, M.D., and Mrs. Virginia E. Johnson, St. Louis, Mo.
(All MAG and Auxiliary Members and Guests Invited)

5:00 MAG General Business Session (North Ballroom)
(All MAG and Auxiliary Members Invited)

MONDAY, MAY 1

8:30 to 3:30 Registration and Information
The Hermitage Foyer
Marriott Motor Hotel
HOSPITALITY AND EXHIBITS,
The Wren's Nest, Marriott

9:00 MAG General Business Session and House of Delegates Meeting (North Ballroom, Marriott)
(All MAG and Auxiliary Members and Guests Invited)
PRESIDING—Walter E. Brown, M.D., Savannah, *President,* Medical Association of Georgia
REPORT OF WOMAN'S AUXILIARY TO MAG—Mrs. James H. Manning, Marietta, *President-Elect,* Woman's Auxiliary to MAG

9:00 Auxiliary General Meeting (The Hermitage Room, Marriott)
CALL TO ORDER—Mrs. John A. Meier, Albany, *President,* Woman's Auxiliary to MAG
INVOCATION—The Reverend Frank Crawley, Pastor, Northside Methodist Church, Atlanta
PLEDGE OF ALLEGIANCE AND COLLECT—Mrs. Robert H. Groves, *President,* Auxiliary to the Dougherty County Medical Society
ADDRESS OF WELCOME—Mrs. F. James Funk, *President,* Auxiliary to the Fulton County Medical Society
RESPONSE TO WELCOME—Mrs. Leonard H. Campbell, *President,* Auxiliary to the Bibb County Medical Society
PRESENTATION OF CONVENTION PLANS—Mrs. Rives Chalmers, *President-Elect,* Auxiliary to the Fulton County Medical Society
INTRODUCTION OF PAGES FOR THE DAY—Mrs. William J. Pendergrast, Atlanta
REPORT OF THE ADVISORY COMMITTEE TO THE WOMAN'S AUXILIARY —Thomas A. Peterson, M.D., *Chairman,* Savannah

Greetings

PRESIDENT OF MAG—Walter E. Brown, M.D., Savannah
PRESIDENT-ELECT OF MAG—John T. Mauldin, M.D., Atlanta
INTRODUCTION OF PAST PRESIDENTS AND GUESTS—Mrs. W. P. Rhyne, Albany, Past President, 1960-61
INTRODUCTION OF GUEST SPEAKER —Mrs. Louie H. Griffin, Sr., Claxton
ADDRESS—Mrs. Karl F. Ritter, *President-Elect,* Woman's Auxiliary to the American Medical Association, Lima, Ohio

Business Session

(All reports limited to two minutes)
CONVENTION RULES OF ORDER—Mrs. John L. Elliott, Savannah, *Parlimentarian*
ROLL CALL—Mrs. Neal F. Yeomans, Waycross, *Secretary*
MINUTES—Mrs. Neal F. Yeomans, Waycross, *Secretary*
TREASURER'S REPORT (including Auditor's Report)—Mrs. C. James Roper, Jasper
PRESIDENT'S REPORT—Mrs. John A. Meier, Albany
PRESIDENT-ELECT'S REPORT—Mrs. James H. Manning, Marietta
ADDENDUM REPORTS—State Officers and Chairmen (Complete reports are published in the 1966-67 Annual Report book)
RECOMMENDATIONS FROM THE EXECUTIVE BOARD—Mrs. Neal F. Yeomans, *Secretary*
REPORT OF THE REVISIONS COMMITTEE—Mrs. William Wilkes, Augusta, *Chairman*

REPORT OF THE CREDENTIALS COMMITTEE—MRS. PERRY WHITE, Atlanta, *Chairman*
ANNOUNCEMENTS

11:30 Recess of Session

12:00 Stone Mountain Tour
Luncheon and Fashion Show—
Stone Mountain Inn
PRESIDING—MRS. JOHN MEIER, *President*
INVOCATION—MRS. JAMES N. BRAWNER, SR., Atlanta

6:30 Fulton County Medical Society's Social Hour
(Ballroom, Marriott)
(All Auxiliary Members Invited)

8:00 MAG President's Banquet
(Ballroom, Marriott)
(All Auxiliary Members Invited)

TUESDAY, MAY 2

9:00 MAG General Business Session and House of Delegates Second Meeting
(All MAG and Auxiliary Members and Guests Invited)

8:30 to 11:30 Registration and Information
The Hermitage Foyer
Marriott Motor Hotel
HOSPITALITY AND EXHIBITS,
(The Wren's Nest, Marriott)

9:00 Auxiliary General Meeting
(The Hermitage Room, Marriott)
CALL TO ORDER—MRS. JOHN A. MEIER, Albany, *President*
MEMORIAL SERVICE—MRS. W. T. EDENFIELD, Atlanta
INTRODUCTION OF PAGES FOR THE DAY—MRS. WILLIAM J. PENDERGRAST, Atlanta
ANNOUNCEMENTS

Business Session

MINUTES—MRS. NEAL F. YEOMANS, Waycross, *Secretary*
REPORT OF THE REVISIONS COMMITTEE—MRS. WILLIAM A. WILKES, Augusta
REPORT OF THE BUDGET AND FINANCE COMMITTEE—MRS. WILLIAM J. PENDERGRAST, Atlanta
REPORT, GEORGIA MEDICAL POLITICAL ACTION COMMITTEE (GaMPAC) —MRS. W. P. STONER, Sylvester
REPORT OF THE RESOLUTION COMMITTEE—MRS. CHARLES F. LESCHER, Griffin, *6th District Councilor* and *President,* Auxiliary to the Spaulding County Medical Society
REPORT OF CREDENTIALS COMMITTEE—MRS. PERRY WHITE, Atlanta
REPORT OF COURTESY COMMITTEE —MRS. ROYAL T. FARROW, Dalton, *President,* Auxiliary to the Whitfield-Murray Medical Society
REPORT OF AWARDS COMMITTEES
Achievement—MRS. JOHN T. GODWIN, Atlanta
Disaster Preparedness—MRS. CARL S. PITTMAN, JR., Tifton
AMA-ERF—MRS. LUTHER VINTON, Avondale Estates
Mrs. J. Boner White Scrapbook—MRS. ROY DUNCAN, Marietta
Marie F. Burns Safety—MRS. LUTHER ROLLINS, Atlanta
James N. Brawner, M.D. Trophy of General Excellence—MRS. LOUIE H. GRIFFIN, SR., Claxton
REPORT OF MAG CONVENTION—
REPORT OF THE NOMINATING COMMITTEE—MRS. LOUIE H. GRIFFIN, SR., Claxton, *Chairman*
ELECTION OF OFFICERS
INSTALLATION OF OFFICERS
MRS. W. BRUCE SCHAEFER, Toccoa, Director, State Department of Family and Children's Services, and Past President, Woman's Auxiliary to MAG
PRESENTATION OF PRESIDENT'S PIN AND GAVEL—MRS. JOHN A. MEIER, Albany (Retiring President)
INAUGURAL ADDRESS AND ANNOUNCEMENTS OF 1967-68 CHAIRMANSHIPS—MRS. JAMES H. MANNING, Marietta, *President*
PRESENTATION OF PAST PRESIDENT'S PIN—MRS. LOUIE H. GRIFFIN, SR., Claxton
ANNOUNCEMENTS

11:30 Adjournment

12:00 Post Convention Executive Board Meeting (Dutch Luncheon)
(Twelve Oaks Room, Marriott)
PRESIDING: MRS. JAMES H. MANNING, Marietta, *President*

12:00 Past President's Luncheon (Dutch)
(Thornwood Room, Marriott)
PRESIDING: MRS. LOUIE H. GRIFFIN, Claxton, *Immediate Past President*

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John T. Godwin, M.D. . . . . 265 Ivy Street, N.E., Atlanta, Georgia 30303

James H. Manning, M.D. . . . . 1205 Roswell Street, Marietta, Georgia 30062

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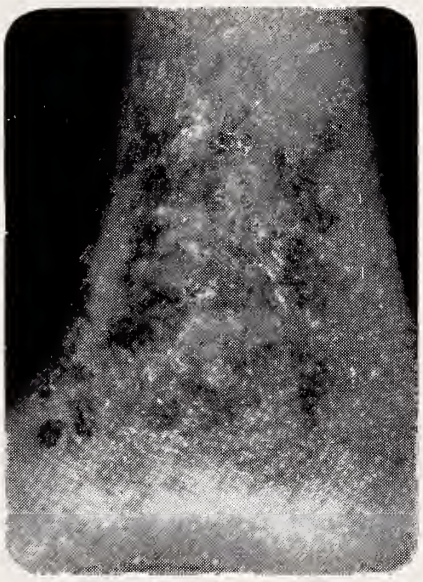

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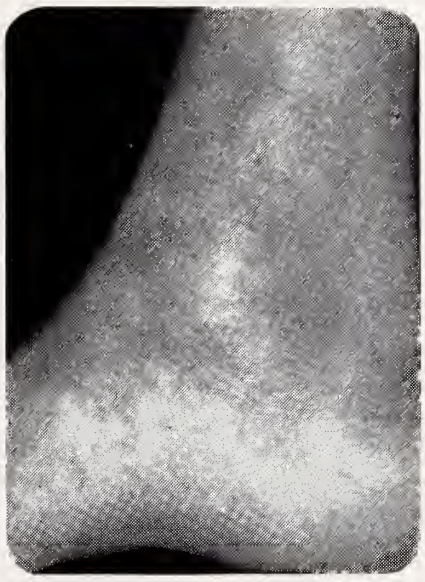

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INSULIN RESISTANCE: MECHANISMS AND MANAGEMENT

Wayne V. Greenberg, M.D., *Augusta*

■ Immunoresistance is most commonly implicated in this unusual condition.

In view of the fact that insulin is the fundamental therapeutic tool for control of a disorder as widely prevalent as diabetes mellitus, it is most surprising that resistance is encountered so rarely. Prior to 1948 only 54 instances had been recorded in the English Literature.[1] Although reports of refractoriness now appear with somewhat greater frequency, major insulin resistance is nevertheless an unusual event in the course of diabetes.

Calculations based on kinetic studies suggest that the normal pancreas secretes approximately 50 units (2 mgm.) insulin daily.[2] The correctness of this estimate is substantiated by the clinical observation that 50 units or less will suffice for daily therapy of absolute insulinopenia as typified either by genetic diabetes of the juvenile type,[3] or acquired diabetes induced by total pancreatectomy.[4] In light of this information, then, it might be assumed that a requirement significantly in excess of 50 units reflects hyporesponsiveness. However, a moderately high insulin dosage does not necessarily portend resistance; a significant fraction of patients who receive between 50 and 150 units are probably not refractory, but rather, are simply victims of over-insulinization (Somogyi syndrome).

Traditionally, "insulin resistance" is said to be present when more than 200 units daily are necessary to maintain adequate control in the absence of ketoacidosis.[5] There are two weaknesses inherent in this somewhat arbitrary definition. First, the word "adequate" must necessarily remain undefined inasmuch as one physician's approach to "control" not uncommonly is viewed by another as therapeutic nihilism or even negligence. Obviously the therapist's personal philosophy concerning tightness of regulation will, in part, determine how much insulin is "required." Secondly, 200 units is well in excess of usual physiologic needs. Nevertheless, by so restricting the diagnosis of insulin resistance, a somewhat useful purpose is served since an abnormal (non-endocrine) antagonist is almost always responsible. Although much is unknown about the actual molecular mechanics of refractoriness, three pathophysiologic types[6-8] have been described as operating singly or in combination: (a) *Intrinsic cellular unresponsiveness* which is not conditioned by recognizable circulating factors. (b) *Biochemical interference* with the action of insulin (endogenous or exogenous) by abnormal circulating protein antagonists (possibly alpha globulins or beta lipoproteins). (c) *Immunologic binding* of insulin (exogenous only) by circulating antibodies (gamma globulins), thereby physically preventing a sufficient quantity of injected hormone from reaching target cells.

As to the relative clinical importance of these three mechanisms, there can be little doubt that binding of insulin by antibodies is the most common cause of resistance as defined above. The main theme of the present review will therefore revolve around the subject of immunoresistance with minor side excursions to mention similarities and differences between antibody-mediated resistance and other forms of insulin antagonism.

Fundamental Considerations

Insulin Metabolism: Availability of a radioiodinated insulin derivative ("RINS"), with biologic properties identical to those of the native molecule, has permitted elucidation of the metabolic fate of this most important life-sustaining hormone. It has been determined that degradation occurs with some degree of rapidity, the main sites of molecular disruption being the liver and kidney. In 1955, Berson et al[2] reported a significant impairment in the clear-

From the Clinical Investigation Unit, and Metabolism Division, Department of Medicine, Medical College of Georgia.

ance of RINS from the circulation of insulin-treated diabetics (half-time = several hours or longer) compared to normal individuals (average half time = 35 minutes). That delay in disposal is not related to the diabetic state per se, but rather is a consequence of insulin therapy, is suggested by observations that: (a) *untreated diabetics* clear RINS as rapidly as normals and (b) *non-diabetic* schizophrenic patients, previously subjected to insulin shock therapy, manifest the very same impairment of RINS clearance as detected in the insulin-treated diabetics.

Immunologic Studies: It has been clearly established that the abnormally slow disposal of radioactive insulin from the plasma of insulin-treated subjects is due to the fact that it becomes tightly (but reversibly) bound to certain gamma globulins; these relatively large molecules impair the normally rapid transcapillary flux of insulin from blood to the interstitial fluid where its vital hormonal action is exerted upon various body cells.

The binding globulin displays the immunologic specificity of an antibody in that it reacts with bovine and porcine insulin, but weakly, if at all, with human insulin. Since the causative antigenic stimulus is commercial insulin, which is a bovine-porcine mixture, this qualitative pattern of immunologic behavior is not totally unexpected.

A point of interest is that bovine insulin does bind somewhat more strongly than porcine insulin to the "specific" antibodies. Presumably, such quantitative differences in reactivity are related to dissimilarities in the molecular structures of the various insulins. Beef and pork both differ from human insulin in that the terminal amino acid of the "B" Chain (position 30) is alanine instead of threonine. Bovine insulin further differs in having alanine and valine in positions eight and ten of the "A" Chain, whereas porcine is similar to human insulin since, in both, these positions are occupied by threonine and isoleucine. A summary of these species structural differences is presented in Table I.

TABLE I

DISSIMILARITIES IN PRIMARY AMINO COMPOSITION OF INSULINS DERIVED FROM DIFFERENT SPECIES

	A Chain		B Chain
Species	Position 8	Position 10	Position 30
Human	Threonine	Isoleucine	Threonine
Porcine	Threonine	Isoleucine	Alanine
Bovine	Alanine	Valine	Alanine

An unusual characteristic of insulin antibodies is that low titers are virtually impossible to detect by the conventional agglutinin, precipitin or complement-fixation reactions.[9] It is only through the property of binding radioactive insulin that detection and quantitation are feasible.[2, 10, 11] RINS, being an extremely "sticky" molecule, fixes tenaciously at the origin when subjected to paper chromatoelectrophoresis either alone or when pre-mixed with normal serum; however, if pre-incubated with serum from insulin-treated patients, insulin no longer remains at the origin, but instead, migrates with the gamma globulins. This alteration in electrophorectic mobility is due to the fact that during incubation, RINS becomes very tightly coupled to insulin antibodies which then carry it piggyback fashion away from the point of application to the paper strip during subsequent chromatoelectrophoresis. This phenomenon of acquired insulin-binding has been amply confirmed by other *in-vitro* techniques such as starch block electrophoresis, ultracentrifugation, gel filtration, and column chromatography.

Clinical Manifestations

In view of the fact that most insulin-treated patients are destined to develop neutralizing (binding) antibodies, it is indeed surprising that loss of clinical efficacy ("secondary insulin failure") is not a more frequent clinical problem. Fortunately, antibody production is usually self-limited and plateaus at a low level so that the total insulin-binding capacity of plasma rarely represents more than an insignificant fraction of the usual daily therapeutic dose. Accordingly, under ordinary circumstances essentially all exogenous insulin remains free to exert full physiologic activity. Only occasionally does the antibody titer attain levels high enough to be of clinical consequence.

For reasons unknown and without warning, the binding capacity may rise, remain elevated for weeks or months, and then mysteriously and spontaneously, return to insignificant levels. During such periods of immunologic exacerbation, the binding capacity usually exceeds 60 units/liter and may attain values as high as 1000 units/liter. Although some authors have attributed these upward swings to non-specific anamnestic responses associated with infection, another mechanism is obviously operative in view of the fact that infection is not regularly demonstrable.

The clinical manifestations of these antibody flares will depend in part on the nature of the diabetes in the particular patient. In *juvenile diabetes,* since there is no secretion of endogenous insulin, maintenance of life is completely and unequivocally dependent upon commercial preparations. Should administered insulin be neutralized by antibodies, ketoacidosis with coma (and perhaps death) might ensue unless sufficient supplemental hormone is quickly provided. On the other hand, in *maturity onset diabetes,* the concentration of circulating insulin of endogenous origin may be quite normal. Since human insulin is not subject to immunologic inactivation by

the offending antibodies, a modicum of protection is thereby provided against total metabolic decompensation. The degree of protection, however, depends on the reserve capacity of the pancreas to synthesize and release insulin, and presence or absence of complicating factors such as infection.

A rising titer is heralded clinically by inadequate control despite progressive escalation in requirements for long-acting insulin. In an attempt to reverse the tide of metabolic decompensation, the therapist usually switches to frequent and sizeable doses of short-acting insulin. All too often this maneuver proves to be frustrating and confusing in that the hyperglycemia persists, and, paradoxically, hypoglycemia may appear many hours following the last insulin injection.

The hyperglycemia is refractory to therapy because the antibodies bind administered insulin, thus impeding immediate access to muscle, liver, and adipose tissue where carbohydrate metabolism can be favorably influenced. The explanation for both the unexpected hypoglycemia and the striking increase in daily insulin requirements becomes clear upon analysis of the possible metabolic fates of the insulin-antibody complex. Two alternative mechanisms[2] are operative in the disposal of this complex: (a) The first pathway is a slow, simple *non-destructive* dissociation, whereby every molecule of complex yields one molecule each of insulin and intact antibody. The cardinal consequence of this route of disposal is delayed hypoglycemia. (b) The second pathway for disposal is *destructive* degradation by the reticuloendothelial system. Molecular fragments are produced which are recognizable neither as active hormone or reactive antibody.[2] *The inevitable consequence: Insulin wastage.* Further, there is continual replacement by newly synthesized antibodies whose unoccupied binding sites must be satisfied with additional hormone. It can readily be seen, then, that total insulin requirements will be determined conjointly by the titer of circulating antibodies, the fraction of insulin-antibody complex degraded daily, and the rate of new antibody synthesis.

Management

"Regular Insulin" (Bovine-Porcine): The keystone and common denominator of all therapeutic regimens for management of resistance is aggressive use of regular insulin (amorphous or crystalline). If a sufficiently large amount is made available, the total binding capacity can be saturated[2] so that subsequent doses will then remain unbound and accordingly be free to lower blood glucose and acetone.

Clinical titration is achieved with progressively larger doses at frequent intervals until improvement in glucose metabolism becomes evident. Herein may lie an unnerving therapeutic trap, since the earliest indication of "improvement" may be the occurrence of severe hypoglycemia as the end point is just exceeded. Heroic quantities of glucose may then be mandatory to restore and maintain normoglycemia.

Another potential therapeutic surprise is the late appearance of hypoglycemia. This unexpected clinical event is caused by metabolically active insulin released by slow dissociation from the insulin-antibody complex which behaves as though it were a circulating "depot" insulin. It should be readily apparent that a major therapeutic problem is to locate, and travel, the narrow and twisting path between ever-threatening coma and potentially brain-damaging hypoglycemia.

At first analysis it would seem that once saturation of serum antibodies has been achieved, subsequent daily requirements should be reasonably small. Unfortunately, the metabolic facts of life are not that simple. Each day as much as 25% of the total insulin-antibody complex may be lost by destructive degradation; this is replaced by an equivalent quantity of newly synthesized antibody whose unoccupied binding sites must be satisfied. For example, assuming a binding capacity of 200 units/liter and that the complex has an apparent volume of distribution of eight liters, then potentially 1600 units of insulin can circulate in the bound (inactivated) state. If 25% of this amount is destroyed daily, the minimum replacement necessary to maintain saturation will be 400 units. To this must be added the usual 25-50 units required for metabolic stimulation, making for a total requirement of 425-450 units.

If the ultimate daily dosage estimated by intravenous titration does not exceed 1000 units, it is most conveniently administered subcutaneously in divided doses at four to six hour intervals. Should the total daily needs exceed 1000 units, then the intravenous route would be both more convenient and certainly more humane. In cases where extraordinarily large doses are necessary, the mechanics of therapy can be simplified by utilizing a concentrated preparation containing 500 or 5000 units per ml. (available from commercial suppliers).

Human Insulin: Human insulin should be a logical therapeutic agent since it reacts weakly with antibodies directed against bovine and porcine insulin.[12] In scattered trials it has indeed proved to be quite effective.[13-16] Unfortunately, this application of human insulin is of academic interest only since it is produced in such limited quantities that it is unavailable for clinical usage.

Sulfonylureas: An alternative method of supplying human insulin, albeit in limited quantities, is to stimu-

late the patient's own islet cells with one of the sulfonylureas.[17-21] Therapeutic success or failure obviously depends on adequacy of the patient's insulin secretory reserve. Despite this potential limitation, certain individuals with resistance do derive significant benefit from such betacytotrophic therapy. It should be emphasized that, just as the efficacy of this group of drugs is unpredictable in non-resistant patients, the same uncertainty exists, only more so, in resistant patients. Many diabetics do not respond at all, and some respond only after a latent period of several weeks. Two points of caution merit emphasis: (a) Since juvenile diabetics cannot manufacture any insulin, sulfonylurea therapy is irrational and contraindicated. (b) Reliance should not be placed on these compounds in the presence of ketosis of ketoacidosis.

But for the exceptions just elaborated, it is strongly recommended that therapy with a sulfonylurea analogue be instituted as one facet of the initial management in all cases of insulin resistance. There is much to be gained, and certainly nothing to lose, provided that adequate amounts of commercial insulin are administered concurrently. Two weeks are required for maximum benefit to accrue. After a trial of four weeks, it should become evident whether the sulfonylurea is, or is not, eliciting a worthwhile response. If improvement is not detectable after this period of time, further continuance will be fruitless, and one must resort to other therapeutic modalities to supplement the basic regimen based on large doses of insulin.

Porcine Insulin: Because porcine insulin binds less intensely than bovine insulin to antibodies *in vitro,* it has been utilized in the management of resistance. Although somewhat smaller doses are required in certain patients,[15, 16, 22, 23] this mode of therapy offers few, if any, practical advantages over commercial insulin.

Dealinated Porcine Insulin: An attempt has been made to improve the clinical usefulness of pork insulin by removing the terminal amino acid (alanine) of the "B" Chain.[15, 16] This chemical manipulation produces a molecule resembling human insulin so closely that it should be very near the therapeutic mark. Unfortunately, the advantages to be realized from this semi-synthetic substance are not very striking.

Steroids: Another technique for combating insulin resistance is to lower the binding capacity of plasma by inhibiting the synthesis of insulin antibodies with pharmacologic quantities of glucocorticoids.[24-29]

Treatment should be started with 40-60 miligrams of prednisone or equivalent. If ketosis is present, a dramatic decrease in ketonemia and ketonuria may rapidly ensue; however, such improvement represents false security inasmuch as it may result from the non-specific anti-ketogenic action of adrenal glucocorticoids and does not necessarily reflect a true lessening of insulin resistance. The more reliable indices of therapeutic success are a lowering of the blood glucose and a decrease in glucosuria. Although these may worsen during the early stages of treatment, steroid therapy should nevertheless be continued at pharmacological levels until insulin requirements approach normal. Ordinarily, this can be expected to occur after seven to ten days of therapy have elapsed. This lag period is caused in part by the time required to establish an effective blockade of antibody production,[30, 31] and in part by the time required for catabolism of preformed antibodies.[32, 33]

Although the diminution in insulin requirements is commonly associated with a simultaneous drop in antibody titers, a number of instances have been reported where a significant return of sensitivity preceded immunologic remission.[29] This particular sequence of events suggests that the steroid-induced improvement does not result solely from impairment of antibody production. Although one report has suggested interference with the antibody-antigen reaction, unequivocal confirmation is lacking. In the resistant state an abnormal serum protein factor(s) may interfere with the action of insulin by some mechanism other than immunological inactivation; it is entirely possible that the early response to steroids results from either neutralization or disappearance of these vaguely defined humoral antagonist(s).

It is noteworthy that the diabetogenic steroids, which ordinarily aggravate the diabetic state, paradoxically decrease insulin requirements in most resistant patients. Apparently the immunosuppressive action far outweighs in clinical significance the direct diabetogenic action on cellular metabolism.

Because 75% of resistant subjects will respond, it is tempting to treat all such patients with steroids. Unfortunately, steroids in pharmacologic doses may aggravate the diabetes in the 25% or so who do not respond, and may also render these already decompensated diabetics more susceptible to infections. The safer route is to hold steroids in reserve for difficult cases. In the absence of contraindications, steroids may be beneficial in those patients who require high insulin dosages over a prolonged period and: (a) have a highly unstable course[8] with fluctuations between ketosis and hypoglycemia or (b) have a history of allergy to insulin[34] or (c) develop sterile abscesses or other severe reactions at injection sites.[35]

Steroid therapy should not be continued longer than one month; otherwise, iatrogenic Cushing's syndrome and severe adrenal involution may result.

Commercial insulin is a mixture of beef and pork insulins. Since these polypeptides differ structurally

from human insulin they are antigenic and stimulate the production of circulating antibodies which usually plateau at low titers. For reasons unknown, antibody titres may unpredictably flare to high levels and inactivate administered insulin. The resultant state of insulin resistance may be counteracted in several ways, of which the most important are: (a) a massive frontal assault with large doses of regular insulin to saturate the total insulin binding capacity (b) use of the sulfonylurea drugs (in maturity onset diabetics only) to stimulate secretion of endogenous insulin which is not subject to immunologic inactivation and (c) treatment with pharmacologic doses of steroids to depress the production of offending antibodies.

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SYMPOSIA ON IRON STORAGE, COLITIS, AMONG SCIENTIFIC PROGRAMS AT AMA ANNUAL CONVENTION

Symposia of interest to both the generalist and the specialist will be included in this year's Scientific Program of the American Medical Association's Annual Convention.

The Convention will be held in Atlantic City June 18-22, the Scientific Program in Convention Hall and surrounding hotels and the House of Delegates at the Chalfonte-Haddon Hall Hotel.

A Symposium on Absorption and Storage of Iron will be presented as a joint meeting of the Sections on Pathology and Physiology, Internal Medicine, Experimental Medicine and Therapeutics, and Gastroenterology.

The Sections on Radiology, Proctology, Pediatrics, General Surgery, Internal Medicine, and Gastroenterology will join for a Symposium on Granulomatous Colitis and Ulcerative Colitis in Children.

Other symposia are being planned and scheduled.

The entire Scientific Program for the 1967 Annual Convention will be published in the May 8 issue of the *Journal of the American Medical Association.*

RECENT TRENDS IN THE TREATMENT OF MYOCARDIAL INFARCTION

Maurice S. Rawlings, M.D.,* *Chattanooga, Tennessee*

DISEASE OF THE HEART AND BLOOD VESSELS remain the leading cause of death in the United States, killing more people than all other diseases combined. Acute coronary occlusion, affecting one in three males past 45 years of age, is *best treated in the hospital.* Decreased mortality is obtained by the early treatment of any complications such as shock, arrhythmia or congestive heart failure. Treatment of these unexpected complications usually requires trained hospital personnel. During hospitalization it is also possible to perform continuous monitoring of the patient's heart beat for early detection and treatment of extrasystoles or other arrhythmias before serious consequences occur. Some form of arrhythmia has been estimated to occur in 76% of infarction cases during these early phases. This type of coronary care is best given in a well-equipped Intensive Care Unit. Resuscitative measures are also more readily available in this type of unit. Recovery of "sudden death" is possible in almost half of such coronary cases by use of mouth-to-mouth resuscitation and external heart massage.

Recent cooperative studies (*J.A.M.A.* Sept. 12, 1966) of 13 hospitals found a mortality rate of 18.6% during the period of hospitalization. The highest portion occurred in the first four days at 9.6%; fifth through seventh day 3.6% and seven through 28th day 5%. During convalescence (day 29th through 120th) another rate of 6% deaths occurred, and days 121 through 365 included another 6%. In summary, a total of 30% death rate for myocardial infarction occurred in the first year for those patients who were able to survive long enough to reach the hospital.

Routine Coronary Orders

A written list of coronary orders for routine use is desirable, tailoring all changes to each patient's needs and yet not forgetting some of the assumed necessities. Some of the items to include are listed as follows:

1. *Relief of Pain:* Morphine-Sulphate with Atropine is still preferred, although Demerol is second choice, since it is less potent and more irritative to local tissues. Initial intravenous use of these drugs is suggested for severe pain with 5 to 10 mg. of Nalline handy as an antidote if overdose is given. Severe pain can induce both shock and arrhythmias through reflex mechanisms that are still poorly understood. The narcotic dose should be repeated in small increments until the need is met. The intravenous route is preferred in shock states due to poor absorption from intramuscular sites.

2. *Oxygen:* Oxygen therapy is indicated if shock, cyanosis, congestive heart failure or persistent pain is present. It is not otherwise needed and does not seem to alter the prognosis. The oxygen tent is mainly used for air conditioning effects, while nasal oxygen (double-lumen tube) or oxygen by mask is more effective and also allows the nurse to care for the patient without the hindrance of an enveloping tent. Hyperbaric oxygen therapy is still experimental but does seem to have some favorable effects upon the patient's recovery.

3. *Medications:* Nitroglycerin is used in the treatment of coronary insufficiency but has no real place in the treatment of acute infarction. The same is true for vasodilators. Sedatives, however, should be used routinely. Chloral hydrate can be used in those past age 50, since some older people seem to hyperreact to phenobarbital; under 50 we give phenobarbital at grs. ½ four times daily, doubling this amount if necessary. We use Quinidine, grs. 3, every four hours or Pronestyl, 250 mg. every four hours, doubling this dose if necessary, at the first indication of any extrasystoles. Most of the rhythm disturbances that are encountered in the acute phase of infarction are preceded by warning phases of irritable heart beats from the infarcted area. Abolishing these extrasystoles will frequently prevent subsequent arrhythmias from developing. Other medications will be discussed later.

4. *Laboratory Data:* SGOT and LDH enzymes are ordered routinely the first three days of therapy. The serum glutamic oxalic transaminase becomes positive within 24 to 48 hours, while the lactic acid dehydrogenase enzyme becomes positive in the second to fifth day post-infarction and is helpful in delayed findings of infarction. Routine studies of fasting sugar and cholesterol are done before dismissed as

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* *Governor for Tennessee, American College of Cardiology; F.C.C.P.; F.A.C.A.; F.A.G.S.; F.C.C.C.; F.A.C.P., and F.A.C.C.*

a survey for some of the diseases predisposing to coronary occlusion. Sedimentation rates, usually corresponding to the temperature elevations, may also be used to follow necrosis activity. Serial EKG's are obtained daily until they become stable. Chest films are obtained sometime before dismissal.

5. *Anticoagulants:* For some time anticoagulant observations have been debated since one group of investigators are often at variance with another group because different standards of observations are used. Hence, the pendulum has swung from one extreme to the other, so that we have a large school who use anticoagulants and a smaller school who do not. However, the majority of reports seem to favor a decreased morbidity and mortality when anticoagulants are used. In the absence of contraindications we use anticoagulants routinely for a minimum of three months and as long as one year, if multiple infarctions have occurred. However, a ten-year double blind study has shown no advantages to life-time anticoagulant therapy unless atrial fibrillation, recurrent phlebitis or prosthetic valves are present. It does not seem to prevent recurrent myocardial infarctions according to Drs. Griswald and Seaman (A.H.A. meeting in New York City, Oct. 1966), although Dr. Irving Wright uses them regularly in recurrent myocardial infarction with angina and in transient ischemic attacks.

After initial regulation we have the patient return for monthly prothrombin determinations and keep the prothrombin level at twice the control value in seconds (or at the same level as the 20% control value if this measure is used). The dangers of bleeding from anticoagulant therapy, we think, are offset by the advantages of decreased morbidity and increased means of patient contact and control through regular examinations. The use of anticoagulants, of course, implies selected patients since anticoagulants are contraindicated in the following conditions:

(1) Bleeding tendencies, uremia, liver disease, peptic ulcer disorder or extreme hypertension.
(2) When reliable laboratory facilities are unavailable.
(3) Where poor patient cooperation is expected.
(4) When psychological dependence or perpetuation of cardiac neurosis is expected by continuance of medication.

Heparin is a short-acting injectable drug of rapid onset that we use the first 72 hours or until the longer acting Coumadin derivatives of slow onset become effective. We start both drugs at the same time. Heparin is given 150 mg. deeply in the subcutaneous tissues every 12 hours as long as the Lee White time (taken before each dose) is below 20 minutes. The antidote for Heparin is Protamine or Polybrene, 100 mg.IV.

Coumadin, an anticoagulant of prolonged action, we prefer to give in an initial dose of 30 to 40 mg., using 5 mg. as an estimated daily maintenance dose until actual requirements are evident by daily prothrombin determinations. *Hedulin* is an intermediate derivative given in doses of 150 mg. initially followed by 50 mg. twice daily until control levels are reached and then given as a maintenance dose which averages 75 mg. daily in divided amounts. The antidote for Hedulin and other Coumadin derivatives is the soluble vitamin K products such as Aquamephyton, 1 cc IV or 2 cc IM, repeated every two hours until the abnormal prothrombin levels are corrected.

6. *Polarizing solutions:* For some time the findings of Sodi-Polaris concerning polarizing solutions has been questioned, although they are admittedly helpful in reducing the injury phase of infarction. Only recently, however, has an actual decreased mortality and other effects been suggested by the experimental work of Richard Bing et al (*Archives of Int. Med.* Vol. 118, No. 1, July 1966). These studies seem to indicate that protein replacement in the destroyed myocardial muscle cells is hastened by the use of polarizing solutions. Even more muscle tissue seemed to recover if corticoids, vitamins and injectable anabolic agents were added to the solution. The basic polarizing solution usually consists of 1,000 cc of 10% invert sugar in distilled water with 40 milliequivalents of potassium chloride added and 20 units of regular insulin.

7. *Toiletry:* Bed pans have no place in the nursing care of myocardial infarction. Unless shock is present the patient should be assisted to a bedside commode for bowel movements and allowed to stand to void when necessary. Even when shock is present the blood pressure may be elevated by increasing the rate of an intravenous vasopressor drip or similar agent, permitting the patient to sit for evacuation purposes. This would be preferable to the dangers of straining at stool, since any Valsalva maneuver temporarily occludes venous return to the heart and momentarily obliterates output for essential coronary and cerebral perfusion. In this regard, medications to soften bowel action (such as Doxidan or PeriColace) should be given routinely and enemas, laxatives or suppositories added as needed.

8. *Diet:* During the first 24 hours the diet should be liquid. Subsequently a permanent anti-atherogenic diet is used (high in polyunsaturated fats but less than 20 Gm. total fat). No coffee is allowed. Comparative five-year studies show that new coronary disease is significantly lower when using anti-atherogenic diets (G. Christakas, et al, *J.A.M.A.*, Nov. 7, 1966, p. 597ff.). No smoking is allowed until the

acute phase of infarction has recovered and then we try to discourage the patient's further smoking since there are several reports of improved prognosis.

9. *Activities:* During the acute phase, the patient is allowed to turn side-to-side while all other activities should be performed for him where possible. The febrile phase usually lasts three to five days. After this we usually help him up into a chair once daily and permit him to stay as long as he wishes, assisting him back to bed. Thereafter the patient is usually able to feed himself, shave himself, and bathe personal portions of his body. Visitors are limited to one or two people at a time and then only members of the immediate family. No telephones are permitted until the patient has passed the fifth or sixth day of hospitalization. Thus activities are limited severely in the first three or four days *and the patient should be completely monitored during this time.* This is best done by remote televised monitoring to a central nurses station in a coronary care unit. These units permit aggregation of all acute infarction patients during their high-risk period into an area supplied with highly trained personnel and specialized equipment. A significantly lower mortality rate has been shown to result (M. M. Nachlas et al, *J.A.M.A.*, Oct. 3, 1966, p. 1 ff.)

The patient is unbathed, hand-fed and unshaved during this period. After the first week to ten days of hospitalization, the patient is transferred out of the Intensive Care Unit into moderate care areas. He is sent home after the second or third week of hospitalization, although this depends upon the size of infarction, the duration of fever, the initial presence or absence of shock, rhythm disturbances, etc. Unless these complications have occurred, the patient usually goes home at the end of two weeks hospitalization, since the period of myocardial rupture has usually passed and the patient is well on the way to recovery.

Another four to six weeks is allowed for recuperation at home and after a total of eight to ten weeks he may return to light work or part-time work. Myocardial scar tissue should be firm and retracted at the end of this six to eight week period, and this is about the time it takes for scar tissue to become firm most anywhere in the body. Ambulation before scar tissue has become firm may cause fatal myocardial rupture or an aneurysmic bulge of the infarcted ventricle. Thus, healing in the infarcted area is about complete in three months, and the patient should no longer be concerned about the dangers of the present "heart attack" but should direct his attentions to the prevention of future heart attacks through prophylactic programs of physical activity and diet and perhaps vasodilator drug therapy during the periods of sleep and inactivity.

Treatment of Complications

1. Congestive Heart Failure: For sometime digitalization was thought to be contraindicated in the presence of acute myocardial infarction because of the irritability of the damaged myocardium and the possible creation of extrasystoles or other irritable rhythms. However, such does not appear to be the case. Digitalization does not seem to increase irritability but does seem to increase heart output through improved contractile force of the heart muscle. Digitalis may be given rapidly or slowly and the drug used may be rapid in onset such as Ouabaine 1 cc. IV and repeated in 30 minutes for full digitalization; less rapid in onset would be Cedilanid 0.8 mg. followed by 0.4 mg. in four hours and again four hours after that; the next slower agent would be Digoxin 0.75 mg. initially followed by 0.25 mg. every six hours times three, and then by 0.25 to 0.50 mg. daily maintenance dose. Digitalization with whole leaf would take longer and the dose would be 1.2 Gms. of Digitalis leaf in divided doses. Digitoxin, 1.2 mg. in divided doses would take still longer to be excreted.

The supporting drugs in the treatment of congestive heart failure include the diuretics, analgesics, sedatives, xanthines, digitalis, B-receptor sympathomamines, oxygen and sometimes blood-letting. Occasionally, however, complications may occur from the treatment itself. Carbonic anhydrase, for example, depresses renal excretion of acid and induces temporary acidosis, and any ammonia chloride therapy added at this time may aggravate the acidosis and could be fatal. Hypochloremic alkalosis, on the other hand, is usually due to excessive diuretic therapy and results in intra-cellular acidosis and poor responsiveness to further mercurial diuretic therapy. Secondary hyperaldosteronism of congestive failure will increase the sodium retention in heart failure and also aggravate potassium loss and may induce hypokalemia, especially if thiazide diuretics are used. These losses may be corrected by the use of two or three grams of potassium chloride a day, starting therapy when "dry weight" of the patient is approached. Occasionally the situation of "inappropriate anti-diuretic hormone" secretion ensues, resulting in water retention with a normal urinary excretion of sodium in a rather concentrated urine. The resulting water intoxication can cause disorientation, somnolence, coma, convulsions and even death. The treatment is to recognize the syndrome and restrict water intake rigidly to 600 cc. per day or less until the diluted plasma values of sodium and chloride are restored to normal by excretion of the excess water load.

The usual findings of heart failure are well known, but occasionally typical signs may be absent. Interstitial edema, for instance, can occur without audible

rales and is best seen by x-ray. It should be suspected when sinus tachycardia greater than 120 is found without shock or fever or other findings to account for the rapid rate.

2. Arrhythmias: Most any type of arrhythmia may occur during the acute phase of myocardial infarction and is estimated to occur in 76% of cases. However, paroxysmal auricular tachycardia is the one arrhythmia that rarely occurs for reasons still unknown. Should it occur, it could be corrected by the usual procedures such as vagal maneuvers, vasopressors, digitalization, Quinidine, Lidacaine or cardioversion, in that order of preference.

Atrial premature beats, unless frequent, usually require no treatment other than sedatives, while ventricular premature beats should be given Quinidine, grs. 3 (or Pronestyl 250 mg.) every hour until controlled and then grs. 3 every four to six hours, avoiding toxic symptoms or prolongation of QT intervals in serial electrocardiograms.

Auricular flutter or fibrillation first requires digitalization to slow the rate followed by Quinidine or Pronestyl for conversion if needed. Occasionally direct cardioversion is used when the illness is grave or the rhythm stubborn.

Ventricular tachycardia is considered an emergency and should be given Pronestyl in increments of 100 mg. every two or three minutes intravenously, monitored by electrocardiogram to avoid overdosage, and stopping as soon as the rhythm converts. Usually between 300 to 1,000 mg. are needed. Intravenous Lidacaine is also useful in doses of 50 mg. (2½ cc. of 2% IV Xylocaine solution directly I.V.) or as a diluted intravenous drip. Dilantin is occasionally helpful while Inderal (Propanolol) is proving to be outstanding. This beta adrenergic blocking agent should be released for general use shortly. Cardioversion is reserved for those cases which do not respond readily to other agents or those emergencies where effectiveness of medication cannot be awaited.

Ventricular fibrillation cannot be clinically differentiated from asystole without the use of an electrocardiogram, since the heart beat and pulse are absent in either case. External heart massage once started, should therefore be continued until an electrocardiogram is obtainable. Defibrillation by electric shock should be attempted when ventricular fibrillation is found. If not at first successful, effectiveness can be enhanced by the intra-cardiac injection of 0.5 cc of 1:10,000 solution of adrenalin through a #22 spinal needle. This should strengthen fibrillation and make it more responsive to electrical conversion. Pronestyl may occasionally be needed for recurrences.

Asystole, on the other hand, frequently responds to external heart massage and mouth-to-mouth resuscitation without other stimuli. Occasionally Adrenalin or intra-cardiac calcium chloride (5 cc of 10% solution) will strengthen cardiac contractions. Pacemakers are usually of little avail unless the myocardium is well oxygenated. Most of the cases we see are poorly oxygenated due to the persistence of the original circumstances causing cardiac arrest.

Heart block carries a 45% mortality and is usually associated with diaphragmatic infarctions which result from occlusion of the right coronary artery. Those blocks arising from occlusion of the right coronary are usually transient while those involving occlusion of the left coronary usually result in a permanent type of heart block, since the anterior wall and septum are infarcted. The auricles and ventricles, beating separately, may require a permanent pacemaker if the idioventricular rate is slow enough to cause cerebrovascular insufficiency (Stokes-Adams episodes). Demand pacing through automatic devices attached to cardiac monitoring is quite helpful in such cases. Most gadgetry is so equipped and will prevent most seizures from occurring; instead of a convulsive seizure, the patient complains of the electric shock that he feels from the pacemaker before syncope can occur. It would seem more desirable to have the patient complaining than have the risk of sudden death. Should the episodes be recurrent, a transvenous electrode catheter can be inserted which will supplement the patient's heart beat and is not felt by the patient. Some cardiologists feel that the intracardiac pacemaker should be used if even a single syncopal episode occurs. The electrode pacemaker may usually be withdrawn from its location in the right ventricle as the heart block recovers. This usually takes two to five days when inferior wall (diaphragmatic) infarctions are present. Occasionally a permament pacemaker will be necessary to replace the temporary ones, especially in anterior infarctions. Should a permanent pacemaker be required, Quinidine therapy should be used to suppress the competing idioventricular pacemaker. The permanent pacemaker may be directly attached to the myocardium by open chest surgery or can be used as a permanent indwelling transvenous catheter with subcutaneous insertion of the attached battery equipment.

Steroids can frequently prevent Stokes-Adams syncope even without affecting the heart block or heart rate. The reason is not clear. Without therapy as mentioned, heart block carries a 45% mortality. Intravenous Isuprel (2 mg. or 2 ampules in 500 cc of D5W) will frequently avoid many of the Stokes-Adams attacks. Polarizing solution is contraindicated in heart block and is still unproven therapy. Rapid

heart rate from excessive stimulation of the idioventricular pacemaker by the Isuprel should be avoided as well as irritable heart beats or flushing of the patient from peripheral vasodilatory effects of the drug. Steroids and Atropine are quite helpful in heart block. Other than heart block and shock, steroids have little use in the treatment of myocardial infarction.

3. Shock: The definition of shock is still ambiguous but usually refers to the level of blood pressure, usually below 80 systolic. Just as significant as the blood pressure, however, is the clinical appearance of the patient. Due to poor tissue perfusion, the patient has a cold, clammy skin, changes in sensorium, etc., and should this shock picture persist for one hour or more, the mortality rapidly becomes 80% or greater. Immediate emergency measures should therefore be used. These include vasopressors, preferably those with combined inotropic and pressor effects such as Levophed or Aramine (alpha and beta adrenergic stimulators). Those containing alpha-adrenergic pressor effects alone (NeoSynephrine, Hypertensin, Vasoxyl) have no real place in the sustained treatment of cardiogenic shock. The purpose of the vasoconstriction therapy is to temporarily increase coronary perfusion pressure and coronary blood flow, decreasing the immediate mortality rate in shock, which seems directly proportional to the adequacy of coronary blood flow. Subsequent support of heart work and effective output are necessary for maintenance of blood pressure and may require a change in therapeutic agents and objectives.

As an emergency initiating agent, Aramine is as good as any. Aramine is used in 2 to 10 mg. (0.2 to 1 cc) intramuscularly in the home or may be used directly intravenously only in a dose of less than ½ of 1cc. In the hospital, continuous intravenous infusions are used at a drip rate sufficient to maintain systolic blood pressure at approximately 100 mmHg. Usually one to three ampules (100 to 300 mg.) of Aramine is placed in each liter of polarizing solution.

Levophed could be used as a more potent agent at the risk of sloughs of the surrounding skin. It is used as one to three ampules (4 mg. per ampule) in each liter with the addition of 5 mg. of Regitine which may actually increase coronary blood flow as well as decrease the tendency to slough. Some Regitine can also be injected into the local tissues, should infiltrations occur.

Steroids of most any type are quite helpful in the treatment of shock and seem to potentiate the effects of vasopressor agents.

Acidosis is a condition that seems to be very prevalent in shock and is often neglected. It is related to the liberation of excessive anoxic metabolites of the lactic acid group which can be neutralized by direct intravenous sodium bicarbonate ampules of 33⅓ m/Eq. This amount can be repeated in an hour if necessary.

It is now thought that digitalization should be used in almost all cases of shock and should be given intravenously. By increasing the contractile force and work of the heart, digitalis may help correct the very cause of cardiogenic shock. Arrhythmias from digitalis therapy should be avoided, but they seem no more prevalent than in non-infarction cases.

Other measures in treating shock include correction of any arrhythmia and methods of assisting the circulation. These methods include cardiopulmonary bypass machines and computerized counter-pulse boost of diastolic arterial flow. Any blood volume deficits should be corrected by plasma expanders or blood transfusions until the monitored central venous pressure has improved. Hyperbaric-oxygenation may also help but most of these measures are still experimental.

While vasopressors have decreased the immediate mortality in shock by 20%, there may be some other means of reducing the remaining 60% to 70% mortality in some way. Perhaps some of the remaining high mortality may be related to inappropriate persistence of peripheral vasoconstriction and poor venous return.

Absence of vasopressor responsiveness, on the other hand, may be due to an uncorrected acidosis or depletion of catecholamines by previous therapy with drugs such as Ismelin or Reserpine. Whenever unresponsiveness to initial vasopressor therapy occurs, these possibilities should be borne in mind. In the therapy of shock, adequate perfusion of tissues with oxygenated blood is of equal importance as the correction of the low blood pressure. While vasopressors may insure the head of pressure necessary for coronary perfusion, the resulting increased peripheral resistance from vasoconstriction further aggravates the problem of tissue perfusion and causes increased work load upon the heart and increased oxygen requirements of the infarcted muscle.

It is also well known that the ventricular function curve is flattened by either congestive heart failure or by shock. While increased ventricular filling pressure normally causes increased ventricular stroke work, there is a point soon reached in the abnormally flattened ventricular function curve where further increase in the filling pressure causes very little increase in stroke work, but can result in a great increase in pulmonary venous pressure and passive congestion of the lungs. It would seem important, therefore, to keep the diastolic pressure low in the left ventricle if pulmonary edema is to be prevented.

The objective in treatment of shock has a twofold purpose; (1) to restore adequate blood pressure

to perfuse vital areas (brain and coronary system) and (2) to restore optimum ventricular function. It has recently been found (R.F.P. Cronin, *Amer. Heart Jour.,* Aug. 1966) that the heart output has actually been decreased and left ventricular diastolic pressure increased by treatment of shock with prolonged peripheral vasoconstrictors, and this seemed to be due to the increased total peripheral resistance. To decrease this peripheral resistance and to improve heart output, peripheral vasodilators (rather than conventional peripheral vasoconstrictors) might be more advantageous in selected cases. Peripheral vasodilator therapy in shock might permit increased tissue perfusion and increased venous return which itself could enhance increase in heart output. The resulting increased heart output might help correct the low blood pressure and further improve the peripheral perfusion difficulties. Likewise, very prolonged use of vasoconstrictive agents may so impair tissue perfusion that tissue hypoxia results in increased capillary permeability with loss of considerable amounts of plasma into the tissues, reducing the effective plasma volume. In fact, those patients that seem completely dependent upon vasopressor therapy and unable to maintain their own blood pressure after several days of maintenance therapy will usually benefit with blood transfusion or plasma expander. This correction of effective blood volume will usually interrupt the apparent vasopressor "dependency" and allow recovery to rapidly occur. Thus the management of cardiogenic shock might be benefited by vasodilator alpha adrenergic blocking drugs rather than the prolonged use of the conventional alpha stimulating vasoconstrictor agents. Other types of shock seem to benefit even more by this type of therapy.

In modern shock treatment it now seems to be vogue to monitor the central venous pressure by means of an indwelling catheter placed from the arm or femoral veins into the superior vena cava or right atrium. Another indwelling catheter is placed intra-arterially in the same wound exposure for monitoring the blood pressure. If the central venous pressure is low, intravenous fluids or perhaps dextran is used. After this low venous pressure is corrected, shock therapy is approached by a trial of peripheral vasodilators rather than the usual peripheral constricting agents. If central venous pressure is elevated (pulmonary edema seldom occurs if the venous pressure is less than 150 mm of water), then peripheral vasodilators might be tried without delay, especially if clinical evidences of inappropriate peripheral vasoconstriction are present. These signs would include cold cyanotic extremities along with poorly palpable peripheral pulses in spite of bounding central pulses. Before instituting vasodilator therapy, however, it is essential to have plasma expanding agents available to fill the enlarged vascular bed that appears as vasodilatation occurs. A catheter monitoring system will thus permit the venous pressure to be kept more constant, the arterial pressure to be more readily improved and blood volume to be balanced. Certainly, the mild peripheral beta adrenergic stimulators (Wyamine) and moderate alpha blocking agents (such as Isuperel 1 mg. per 500 cc of glucose and distilled water) would be preferable to pure alpha stimulators alone (Neosynephrine, Vasoxyl). Vasodilator therapy, however, would involve the use of alpha blocking agents and would affect only the peripheral vascular bed and not the heart or central system, since the heart contains no alpha adrenergic receptor endings. Such vasodilator drugs include Dibenzylene 1 mg/kg I.V., Arfonad by intravenous drip (ganglionic blockade agents), and Apresolene by repeated intravenous doses of 20 mgs. Beta blocking agents (Inderol) are now available but do not seem indicated in shock therapy. These beta adrenergic blockers are best used in rhythm disturbances and anginal syndromes. Inderol is beneficial here through beta blockade with coronary vasodilatation and reduced myocardial irritability.

Those agents with combined alpha and beta adrenergic receptor stimulation include Levophed and Aramine. In addition to peripheral vasoconstriction they have an inotropic effect upon the heart. Wyamine (Mephentermine) on the other hand, is primarily a beta stimulator causing active vasodilatation peripherally and inotropic effects centrally with increased heart rate and output with only slight increase in blood pressure. This effect of Wyamine would seem to be desirable since it results in an increased peripheral flow without an increase in peripheral vascular resistance. The use of Wyamine has been recommended as an intermediary agent between complete vasopressor therapy on one hand and complete vasodilator therapy on the other, until the correct treatment of cardiogenic shock becomes apparent in each individual case.

In summary, prolonged vasoconstriction found in many shock states might be deleterious except where it preserves coronary and cerebral perfusion. This is especially so if prolonged vasoconstriction shifts the blood volume from the systemic into the pulmonary circulation, causing a tendency to pulmonary congestion aggravated by the increased peripheral vascular resistance which could also produce cardiac overload. This might also decrease tissue perfusion and cause progressive metabolic acidosis, further aggravating the shock. Any persistence of an increased venous pressure and decreased pulse pressure in a

patient with shock should suggest an "inappropriate" prolongation of peripheral vasoconstriction. In these patients a selective use of peripheral vasodilator therapy might be helpful if the central venous pressure is first corrected and maintained by intravenous fluids. There is still a dominant group of conservative cardiologists (L. E. Corday, *Am. Jour. of Cardiology,* Oct. 1965) who believe that peripheral vasodilator therapy may actually cause an increased mortality in some cases by decreasing the minimum pressure needed for adequate coronary perfusion. Peripheral vasodilatation therapy at present, it would seem, should be used on a selected basis. Meanwhile, Wyamine would be the intermediate type of drug of choice in the treatment of cardiogenic shock in routine cases, using Aramine initially to insure coronary perfusion when needed.

4. Pulmonary Embolism: This is treated with anticoagulants, using vena caval ligation if embolism is repeated when anticoagulant levels are considered adequate. The majority of these emboli seem to arise from the lower extremities and pelvic structures (85% of cases). Most emboli do not infarct the lung and hence cause little x-ray or EKG evidence of their existence. Should a massive pulmonary infarction occur, angiocardiograms would be needed if visual localization is necessary, but an embolectomy should not be considered unless a team trained in this procedure is available and a pump-oxygenator is ready for use. Drugs that might be indicated include Atropine, Papaverine, digitalis and corticosteroids.

5. Peripheral Arterial Emboli: Peripheral arterial emboli may originate from mural thrombi overlying the infarcted area of myocardium. If the collateral flow in the area is considered inadequate, these emboli should be removed by open arteriotomy within two or three hours of their formation.

6. Cardiac Rupture: Cardiac rupture is usually sudden and fatal and most likely to occur before the second post-infarction week. In rare cases rupture will be "slow," in which case the possibility of removing blood accumulations from the pericardium through needle aspiration might prevent fatal tamponade until emergency surgical repair of the rupture can be done.

7. Rupture of Papillary Muscles or of the Intraventicular Septum: This condition usually occurs in the first few days after the infarction. The ensuing congestive heart failure is almost inevitable and is usually severe and fatal. However, those few cases responding to treatment for heart failure might be able to withstand a surgical repair. Preferably, confirmation of diagnosis by angiocardiograms should first be done.

8. Post-Infarction Syndrome: This is an unusual complication which can occur as early as one to two weeks after the infarction episode and is manifested by pericardial rub and fever which lasts three to five days. This usually subsides with steroid therapy which should be maintained for five to seven days or until recovery is stable.

Experimental Therapy of Shock

1. Treatment of shock with alpha adrenergic blocking agents is now in vogue in selected patients where such vasodilator therapy (rather than conventional peripheral vasoconstrictive therapy) seems indicated.

2. A new era of therapy with beta-blocking agents is now available for arrhythmias complicating myocardial infarction. The most promising of these is Inderal (Propanolol, Ayerst). Since the heart contains purely beta and no alpha sympathetic receptors, only those drugs stimulating or blocking the beta receptors would affect the sympathetic nervous system functions in the heart. Thus, Inderal, a beta-blocking agent, reduces the conductivity and excitability of the heart muscle and is also helpful in the treatment of angina. Its side effect would be decreased heart work to the point of actual heart failure.

3. Hyperbaric oxygenation is still experimental and seems to be proving useful by some of the mortality studies.

4. Hypothermia has little clinical use in the treatment of myocardial infarction thus far.

5. Cardiopulmonary bypass apparatus and implantable "artificial heart" are receiving notoriety beyond their present usefulness, but remain a most promising tool for the future.

6. Computerized counter-pulsation therapy provides a means for intra-arterial boost of peripheral pressure during diastole, as another effective means of blood pressure support.

7. Recently excisional therapy of acute infarctions has come under study. It seems that experimental surgical excision of acute infarctions induced in dogs has considerably improved the mortality rate. The resulting post-coronary state is reported to have an excellent coronary flow demonstrable across the sutured site by subsequent coronary angiograms.

8. As a final comment, future trends in the treatment of myocardial infarction will undoubtedly need constant revision, while the basic principles of therapy will probably remain the same. Each of us continues to strive in our own observations and experience to stabilize the ever-swinging pendulum of medical therapeutic thought and mould it into something that is tangible and currently useful to the every-day practitioner in his bed-side treatment of myocardial infarction, the leading decimator of our populace.

Diagnostic Center
2410 McCallie Avenue

FAMILY PLANNING AND PUBLIC HEALTH IN GEORGIA: AN ENLARGED COMMITMENT*

Nicholas H. Wright, M.D.,** *Ann Arbor, Michigan* and
Helen W. Bellhouse, M.D.,*** *Atlanta*

■ In spite of the widespread availability of family planning information and services the majority of eligible women have not been reached.

GEORGIA was among the first of a group of Southeastern states to initiate subsidized family planning programs in county health departments. Although only information was provided in 1939, supplies of "traditional" contraceptives soon became available on a limited basis to participating counties. The program grew slowly. By the end of 1963, 103 counties were participating. In 1964, however, 30 more programs were established in existing county maternal and child health clinics. This sudden increase in activity was due in large part to a vigorous state-wide nursing education program conducted in 1962-63 by staff members of the Maternal and Child Health Service.[1] It has been estimated that a maximum of 7,000 underprivileged women received instruction and at least a first supply of their chosen "traditional" contraceptive method in 1964.

Not Being Reached

Despite the widespread availability of family planning services, it was evident to the staff of the Maternal and Child Health Service that the vast majority of eligible women were not being reached. Multiple lines of evidence supported this conclusion. Polgar estimated in 1964 that there were 174,000 women between the ages of 18-39 with incomes under $3,000 in Georgia needing family planning services.[2] This is a minimal estimate and suggests that county clinics only reached an estimated 4% of eligible women in 1964. To be sure, not all eligible women are interested in contraceptive services at any one time because of pregnancy, desired pregnancy, infertility and singularity. Nevertheless, evidence from Florida suggested that most public patients are very interested.[3] In view of the expressed need for family planning, the continuing high crude birth rates in Georgia, particularly among non-whites, showed that the gap between those eligible and interested, and those served, remained a large one. A second indicator of slow progress was the postpartum return rate at county clinics. Despite the offering of family planning services in 133 of the 157 counties with health departments, the state-wide postpartum return rate was only 24% in fiscal year 1963-64. A return rate this low is significant in view of the general observation that postpartum return rates rise when effective services are offered as a routine part of the postpartum visit.[4, 5]

Disquieting Indicators

A third set of disquieting indicators were maternal and infant mortality rates. The maternal mortality rate in Georgia for 1964 was 5.7 per 10,000 live births.[6] Of the 57 maternal deaths, 14 were associated with abortion and at least 15 with parities of five or more. Although the maternal mortality rate in Georgia declined during the 1950's, it has remained stable since 1960 and continues to exceed the national rate of 3.3 in 1964.[7] Infant mortality rates in Georgia in 1964 were also higher than national figures. The rate in Georgia for that year was 29.2 per 1,000 live births and 24.8 nationally.[8] Finally, premature births in Georgia were increasingly prevalent in the 1960's and accounted for much of the slowing of the downtrend in infant mortality, particularly neonatal mortality in the 1950's.[9]

There was ample evidence that the public patients

* *From the Maternal and Child Health Service, Georgia Department of Public Health, Atlanta.*

** *Epidemic Intelligence Service Officer, Communicable Disease Center, Public Health Service, U. S. Department of Health, Education and Welfare, assigned to the Emory University Family Planning Program, and Consultant in Family Planning, Georgia Department of Public Health, Atlanta. Dr. Wright is presently at the Center for Population Planning, School of Public Health, University of Michigan, Ann Arbor.*

*** *Director, Maternal and Child Health Service, Georgia Department of Public Health, Atlanta.*

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PERCENTAGE DISTRIBUTION OF LIVE BIRTHS (1957) AND NEONATAL DEATHS (1958) BY BIRTH ORDER, GEORGIA

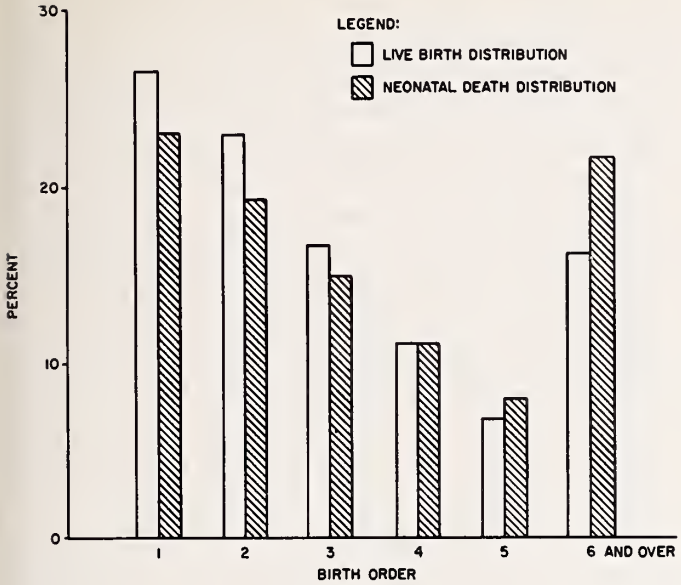

FIGURE 1

GROWTH OF GEORGIA FAMILY PLANNING PROGRAMS
PERCENT OF GEORGIA COUNTIES WITH HEALTH DEPARTMENTS OFFERING "TRADITIONAL" AND "MODERN" CONTRACEPTIVE SERVICES, 1939-66

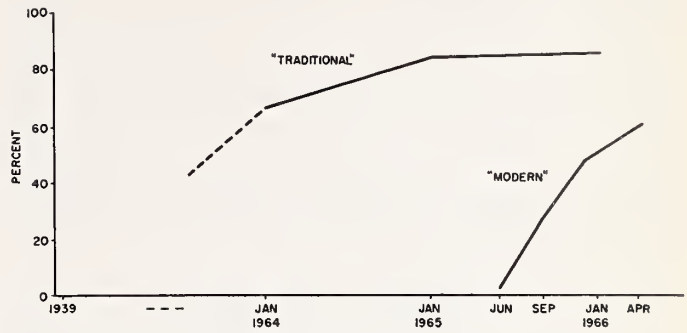

FIGURE 2

at county health departments made a relatively large contribution to the numerators of all these rates. Figure 1, for example, shows the relatively high contribution of the grandmultiparas (birth order six and over) to neonatal deaths in Georgia. The relative contribution to this component of infant mortality is less for birth orders one to three, becomes equivalent at birth order four, is slightly greater for birth order five, but is much greater for birth orders six and seven. Since very few women desire this number of children, the contribution effective family planning services can make in reducing neonatal mortality is obvious. Furthermore, studies of the relation between child spacing and prematurity, late fetal, and infant mortality suggested decreasing rates with increasing birth intervals.[10, 11, 12] Data on illegal abortion in Georgia is not available, but whatever the true number of these desperate and frequently crude attempts at family planning, both the morbidity, physical and psychological, and mortality are largely preventable. These and other considerations prompted a meeting of prominent physicians and State Health Department officials in November, 1964. This advisory committee unanimously recommended the expansion of the State's family planning activities with the use of "modern" methods (oral and intrauterine).

Enlarged Commitment

The decision of the State Board of Health in June, 1965 to accept this report of the Advisory Committee on Family Planning greatly enlarged the scope of the program. Not only were the oral contraceptives and intrauterine devices more effective than "traditional" methods, but they had been shown to be more acceptable to underprivileged women desiring to limit the size of their families. Several counties and charity hospitals in Georgia offered the "modern" methods before the Board of Health decision, and their accumulated experience served to emphasize the value of the newer methods, particularly intrauterine contraception.[4] These advantages were outlined at a clinical and administrative meeting in July, 1965 for all medical and nursing directors of local health departments.

A memorandum of policy and procedures was drawn up and made available to all professional public health personnel in Georgia. Several medical and broad socio-economic criteria were suggested as indicators for family planning service. The continued voluntary nature of the program for the patient was emphasized. Clinic policy and procedures were outlined as were broad eligibility criteria. Interested counties were required to secure the approval of local medical societies and boards of health. These requirements were formulated in a checkoff plan for county use.* The plan summarized the terms of state subsidization and made it possible for counties to consider systematically all the medical requirements for use of the "modern" methods. This was important since the prior use of "traditional" methods did not require close medical supervision. The form was completed by the district medical director with an estimate of supplies needed. For the seven districts without medical directors, the plan could be executed by the medical member of the county board of health.

Since funds were limited, a small supply of oral contraceptives was offered to the counties on the basis of a population quota. Intrauterine devices were not so rationed, nor were "traditional" supplies like foam and jelly. Although all methods were to be offered at the county health department, it was clear that the intrauterine method for reasons of cost and ease of use would be the backbone of the expanded program. When additional funds became available a

* *Copies available on request from Dr. Bellhouse.*

bonus system was developed for oral contraceptives. Based on the estimate that some 20% of device acceptors (Lippes Loop) will prove intolerant to the method in the first year of use, extra supplies of orals were made available to requesting counties on the basis of the number of devices ordered. In this way use of the device was promoted and a second, highly effective method was made available for discontinuers of the intrauterine method.

Consultant Services

A consulting team for family planning was established within the Maternal and Child Health Service. Various members of the staff shared the duties of promoting the program in county health departments. The local health department would make the final decision, but the members of the Service recognized the need for publicizing the advantages of "modern" family planning services, particularly in the districts without medical directors.

Teaching materials were prepared and charts were secured for use by local public health nurses. The class was suggested as the most time-saving way of transmitting the needed information on reproductive anatomy and physiology, and contraception to the patients. This effort built upon the state-wide nursing education effort in 1962-63. Model classes were taught in the context of a local demonstration clinic for the intrauterine method. All community physicians were invited to these sessions and in many instances physicians not participating in local health department programs attended.

Consultation has taken other forms in counties without district medical direction, without any or only limited physician participation in local public health activities, or various combinations of these situations. Generally speaking, the public health nurse is called to review the county situation. If she proves to be enthusiastic, but feels that the situation requires medical and nursing support, key doctors are visited in her community. If potentially helpful, a speaking engagement at the next medical society meeting is arranged. In several instances, high priority counties were actively sought out in this way. More commonly, a local health department spontaneously requested the help of the consulting team.

Reticence of Some Physicians

A recurrent problem has been the reticence of many physicians to accept the intrauterine method. A July, 1965 survey of Georgia public health-connected physicians revealed that while 89.4% of clinicians had experience with oral contraception, only 29.8% were using the intrauterine method in private or public practice. Furthermore, 17.3% felt that intrauterine devices were medically unacceptable.[13] These findings were not surprising in view of the earlier problems with this method and its subsequent disrepute.[14] The side effects of the new plastic intrauterine devices are often exaggerated or there are fears that its ultimate mechanism of action may be disruption of an implanted embryo. Enough recent evidence is available to reassure physicians on these points.[15, 16, 17] When consideration of physician time is an obstacle to local participation, the team emphasizes the infrequent nature of side effects requiring medical attention and the considerable long term benefits of the program to the community. We do not hesitate to ask for a modest two or four physician hours per month, emphasizing the many ways the public health nurse can save time for the physician and herself in organizing family planning services at the health department. An honorarium, of course, is available to the participating physician. In several counties, however, time has been donated.

The straightforward approach seems to work. Physicians respond to family planning as a sensible investment of their time and appreciate the personal contact. Although most of the family planning services are centered in existing maternal and child health clinics, four county health departments without prior physician participation now have family planning programs. We had hoped that the establishment of "modern" services in key counties would seed to the surrounding counties. This does happen occasionally but the isolation of the busy general practitioner tends to retard this process, particularly in counties without district medical directors. The employment of detailing principles was necessary to convert hard-to-reach counties. The task of selling the expanded program was lightened by the "Family Planning Services Act" of 1966. In this bill, the Georgia legislature indicated its interest in seeing that all county health and welfare departments provide family planning services.

Growth and Evaluation

County acceptance has progressed steadily since June, 1965. By September, 43 counties had submitted plans for expanded or new programs. This number grew to 75 by December and 96, or 60.8% of all counties with health departments by April, 1966. Figure 2 shows the growth of "modern" family planning programs in county health departments since 1939. The rapid rate of growth of "modern" programs is evident.

All counties participating in the old and/or expanded family planning programs report their activities on a monthly basis. By the end of 1965, 2,434 devices were inserted, 832 women accepted

oral contraceptives and 4,649 women were continuing users of "traditional" methods at county health departments. This local health department activity was supplemented by service to disadvantaged women from several counties at Grady and Talmadge Memorial Hospitals. Considering all family planning services provided to disadvantaged women in Georgia in 1965, a total of 6,558 accepted devices, and 1,895 began the oral method. These totals omit disadvantaged women begun on "modern" methods in private physicians' offices. Despite this understatement, 13,102 underprivileged women in Georgia received contraceptive services of all kinds in 1965. This represents almost 8% of the Polgar minimum estimate and a doubling of service, not to mention technological improvement, in one year. Judging from monthly reports for the first quarter of 1966, activity with the "modern" methods at local health departments will more than triple this year. Activities at Grady and Talmadge are expected to remain stable.

Record keeping has been given high priority. Only in this way will quantitative data be available for evaluation. The lack of such data was noted in a recent survey of State programs.[18] The monthly data is returned to the counties in the form of a quarterly report. Using a modification of the Polgar formula, estimates of eligible women have been made for each county. If the amount of reported new service is used as a numerator, and the estimate as a denominator, the resulting fraction can be used as a measure of county performance. A superior job will be recognized if a county reaches 15% of its eligible women in 1966. Less than 5% will be considered an indication for further consultation to correct remediable nursing or medical difficulties. The quarterly report also transmits medical, nursing and administrative information.[19, 20, 21] The reports are sent to participating clinicians as well as full-time public health professionals.

Future Needs

It seems clear that a program of this scope and priority will need active promotion and monitoring. While the activity of participating counties is increasing, the rate of submission of new plans has slowed. The counties standing outside the new program tend to be rural with smaller total population and over-worked physicians. There is often no district medical supervision. The state and local health departments have the responsibility to see that no underprivileged citizen is denied this vital health service by any of these factors. This was certainly the intent of the 1966 Georgia legislature. The use of itinerant physicians should be considered when local physician services cannot be secured.

The public health nurse is also over-worked in many counties. The use of non-professional women from the disadvantaged community to act as family planning educators should be considered in virtually every county health department. This idea has been successfully pioneered in several Alabama counties,[22] and at Grady Memorial Hospital in cooperation with Economic Opportunity Atlanta, Inc. These women can extend the reach of the public health nurse in promoting family planning and other programs.

The development of pamphlets suitable for public patients is a third major need. Many patients are functional illiterates and need pictorial representation of the elementary facts of contraception and human reproduction. These materials should be freely available and patients should be encouraged to take them home. It is not enough to have the materials available in a rack; they should be given to the patient by clinic personnel.

Training programs for doctors and nurses should be continued. There is still anxiety about family planning communication among nurses and the use of intrauterine contraception among physicians. Although large strides have been made to ease this insecurity and skepticism, more persuasive steps are needed. Regional and district meetings are a logical way of discharging this responsibility, but individual meetings will often be necessary.

Finally, new approaches to the problem of illegitimate parenthood are under consideration. The county programs are restricted to mothers, but our professional responsibility for communicating healthy concepts of human sexuality and the facts of human reproduction and contraception should not have to await an unwanted pregnancy. This difficult area is the joint responsibility of the home, the school, and the medical and nursing professions. The proper role of the Georgia Department of Public Health, in our opinion, is to encourage local programs of family life education in the schools that will make the hazards of early marriage, unwanted children, illegal abortion and venereal disease well known. This task will also require an expanded commitment.

Summary

The rapid expansion of the Georgia State family planning program has been described. The use of superior contraceptive technology and active promotion promises to give more disadvantaged women the option to plan their families than ever before. A simple method of program evaluation by county has evolved based on a quantitative monthly reporting system and estimates of eligible women. This information has been returned to the counties in a quarterly report. The report also serves as a source of medical, nursing, and administrative information.

It is expected that the medical benefits of this program will be healthier mothers and wanted children, fewer criminal abortions, and an improvement in pertinent vital rates. The social and economic impact of this program in preventing poverty and promoting family stability will be more difficult to measure but certainly not inconsiderable.

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EMORY RECEIVES $600,000 TO ESTABLISH CHAIR OF FAMILY PLANNING AND MATERNAL HEALTH

Emory University has received a gift of $600,000 to endow a Chair of Family Planning and Maternal Health in the department of gynecology and obstetrics of its medical school.

The Chair, established by Mrs. Cordelia Scaife May of Ligonier, Pennsylvania will be concerned with research, training and service responsibilities directly related to the field of family planning.

7,000 Babies Each Year

The department of gynecology and obstetrics at Emory is responsible for supervising obstetric patient care at Grady Hospital where 7,000 babies are born each year to indigent mothers.

Dr. John D. Thompson, chairman of the department, said, "We have long been concerned about the high rates of premature births and perinatal mortality among these patients."

Poverty and uncontrolled family growth have created severe health problems for many of these mothers and their families.

With the aid of funds from the U.S. Children's Bureau, the department has developed within the past year one of the largest maternal and child health projects in the country for expectant mothers with pregnancy complications.

Grant in 1962

Emory began its family planning program in 1962 with a grant from the Sunnen Foundation. The grant was increased in 1963 allowing an expansion of the program. Recently, it has been described as the largest and finest hospital-based family planning program in the nation.

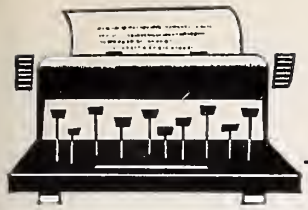
Some 400 patients are aided each month, according to Dr. Thompson. In the last 27 months 6,000 intrauterine devices have been inserted. Since the program began in 1962, 16,000 families have been given assistance with contraceptive services.

"We have developed our family planning program through phase one establishing the service. Mrs. May's generous gift will enable us to enter phase two with the development of a center for family planning and maternal health," Dr. Thompson commented.

Service, Training, Research

Dr. Thompson said the center will provide service. training and research. Research is planned in both the biological and behavioral aspects of human reproduction. He hopes in the future it will be able to provide consultative services to other agencies seeking to establish family planning programs, and train personnel for such agencies. He looks forward to establishing a master's degree program in family planning and maternal health for sub-professional as well as professional personnel.

Emory and Grady form the largest obstetric training center in a radius of 500 miles in a section of the U.S. where reproductive health problems are greatest. As a result, the Chair established by Mrs. May is in an extremely strategic location.



EDITORIALS

Welcome to Atlanta for Annual Session

THE 1114 MEMBERS of the Fulton County Medical Society join me in welcoming you to the 113th Annual Session of the Medical Association of Georgia. We hope you will enjoy your stay in our rapidly changing city. If you find many things here that you cannot remember seeing before, relax and realize that you are just one of the crowd. Many of us are in the same boat and, in fact, many of us do not see downtown Atlanta any more often than you do. Our Local Arrangements Committee under the Leadership of Dr. Fleming Jolley has made an all-out effort to make your visit with us as pleasant as possible. We in the Fulton County Medical Society are more appreciative than you can know of the graciousness and hospitality that we experience when this meeting is held, as it more often is, in other areas of the state. We know and appreciate the time and effort and spirit of friendship that has gone into these sessions, and we sincerely hope that we can reciprocate in some small way. Please call on us at the Academy of Medicine if there is any way that we can be of help outside the purview of the MAG.

William W. Moore, Jr., M.D.
President, Fulton County Medical Society

Current Clinical Concepts

ELSEWHERE in this issue of the *Journal* the first of a series of review articles is featured. They will be of considerable interest to readers in many areas of practice. These papers are written by Georgia authors who have more than a passing interest in the subjects they will discuss. Many of the authors have done considerable original research in the areas covered by these reviews.

As Georgia has progressed so rapidly in other fields of endeavor, we think it only fitting that the state has more than its share of outstanding teachers and practitioners of medicine. It appears that the "brain drain" away from Georgia has been halted and indeed reversed to the extent that we now have many nationally recognized leaders in medical practice, teaching and research within our borders.

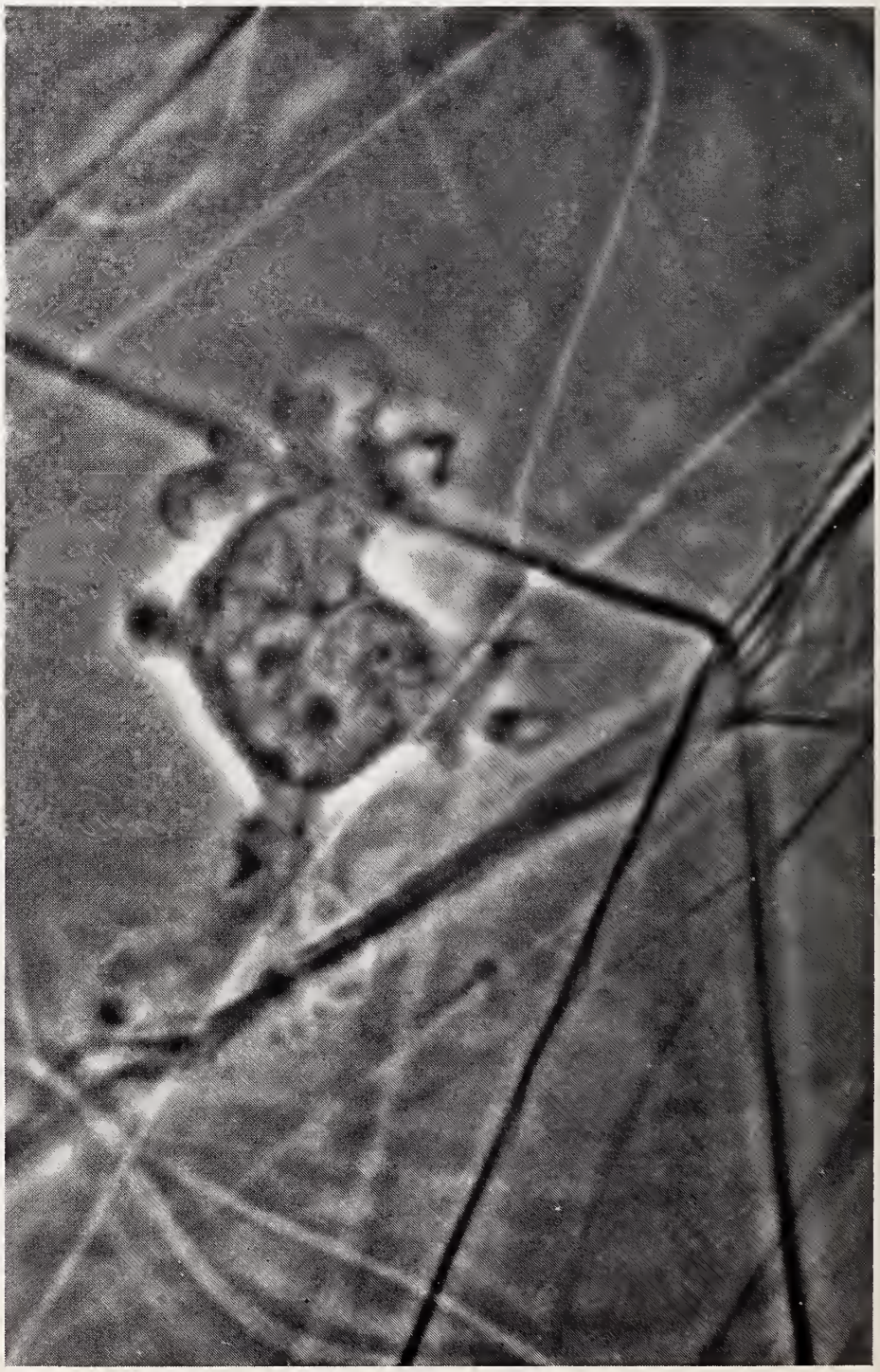
It is gratifying that many of these physicians have agreed to summarize and discuss the things that are known currently in their respective fields of endeavor. We believe you will enjoy "Current Clinical Concepts."

INFLAMMATION: A cellular fight for life

A SYNTEX REPORT based on recently developed hypotheses about topical corticosteroids, including the cellular theories of inflammation by Thomas F. Dougherty, Ph.D., University of Utah.

You are looking at a fibroblast fighting for life. This cell—one of the most common found in connective tissue—has literally been poisoned by cytotoxins released from other cells that have ruptured. Soon, if the abnormal activity of this fibroblast does not cease, it, too, will rupture and die—one more casualty in the inflammatory wave of destruction precipitated by injury.

Until a short time ago no one had ever witnessed such a scene at the cellular level. Now, through advanced cinemicrographic techniques, it is possible to view and photograph the inflammatory process as produced experimentally in living animal tissue. This method permits new insight into the mechanism of inflammation and the role of corticosteroids in therapeutic management. Equally important, these techniques shed new light on factors that may make one corticosteroid more effective than another—factors that can be correlated with other chemical, biologic, and clinical parameters.

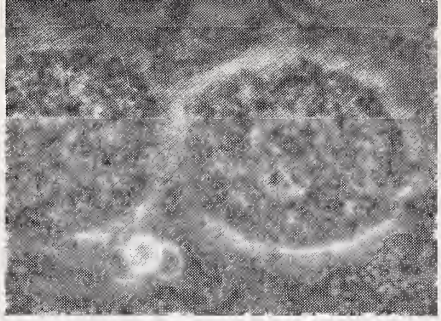


Visual evidence of how corticosteroids influence the inflammatory reaction

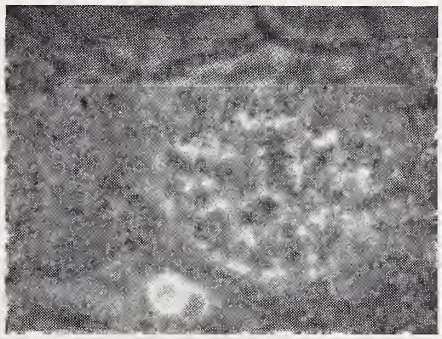
Working with phase-contrast cinemicrography on living animal tissue, Doctors Thomas F. Dougherty and David Berliner of the University of Utah College of Medicine have actually filmed cellular events that occur during the inflammatory reaction. This remarkable study* and additional work by these investigators, as well as by others, have established a new theoretical biologic basis for the antiinflammatory effect of the corticosteroids. (It must be noted that other theories, such as the lysosome or so-called "suicide bag" theory, have been postulated, although it is quite likely that there are more similarities than differences among the various theoretical models.)

The inflammatory wave of destruction

In this investigation an injurious injection of gelatin is used to set off an inflammatory reaction in living mouse tissue. What follows is a wave of destructive cellular activity that comprises the inflammatory response to injury. Mast cells (which contain heparin, serotonin and histamine) take up water, swell and rupture, releasing their contents, which are toxic outside the mast cell wall. These toxins, in turn, cause disintegration of other cells (such as fibroblasts) and the release of additional toxic material. Capillaries, too, take up water and leak unformed blood elements, causing edema. And polymorphonuclears, lymphocytes and perithelial cells invade the inflamed site. As a result of all these changes, the cellular environment reaches a state of turmoil.



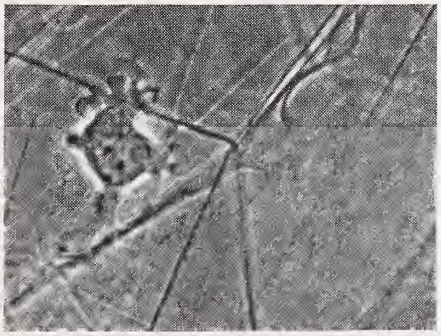
Phase-contrast microscopy showing mast cell before injury.



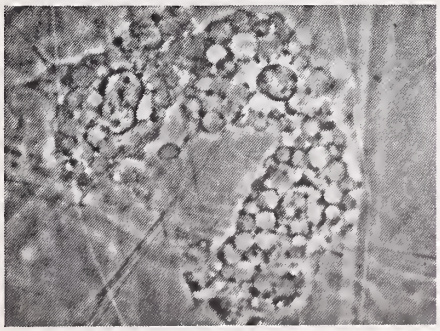
Mast cell (after injury) has broken up and released cytotoxins.

How corticosteroids change the picture

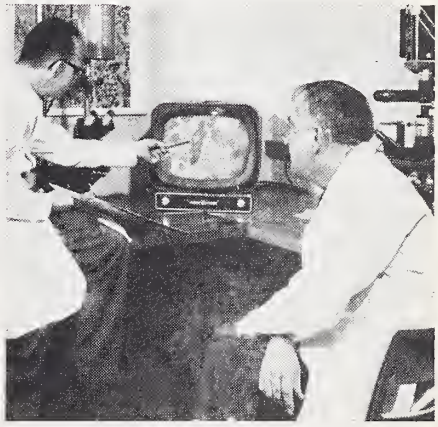
Corticosteroids appear to virtually stop the abnormal cellular activity that constitutes the inflammatory reaction. This permits the body's natural resources to clear up the inflamed area and repair the damaged tissue. This interpretation is supported by the fact that when the injurious gelatin solution is injected simultaneously with a corticosteroid — Synalar (fluocinolone acetonide) — the inflammatory pattern simply does not develop.



Fibroblast in high state of activity, much distorted.



Mast cells showing effects of corticosteroid action: cells are normal in size, shape and activity.



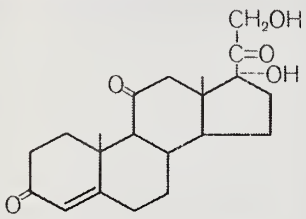
In summarizing his study Doctor Dougherty states: "...we also feel this work may explain why one corticosteroid helps a patient more rapidly and effectively than another. If it does, it is because one corticosteroid is the fastest, most effective inhibitor of the series of inflammatory events at the tissue level."

A New View of Corticosteroid Action in Inflammatory Dermatoses, a film based on this study, is now available from your Syntex representative.

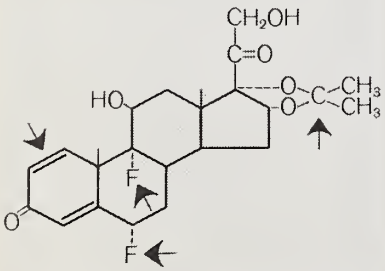
See last page for contraindications, precautions, side effects and dosage.

How advances in chemical design have achieved greater steroid potency

The chemical modification of corticosteroid molecules from the advent of hydrocortisone to the development of Synalar (fluocinolone acetonide) is a prime example of how biochemists can "design" to increase therapeutic activity and minimize undesirable side actions. Below, for example, we see the important changes that were made in reference to the hydrocortisone molecule to produce fluocinolone acetonide, one of the most active of all topical corticosteroids. As a result, a 0.01% preparation of Synalar (fluocinolone acetonide) has been reported to do the work of a 1% hydrocortisone product containing 100 times more cortiscosteroid. And it can often do it more effectively.



Hydrocortisone

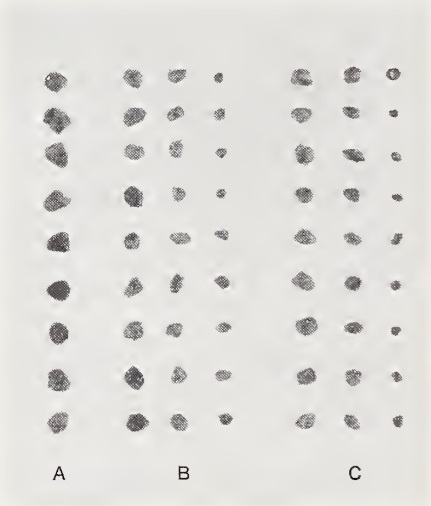


Fluocinolone Acetonide (Synalar)

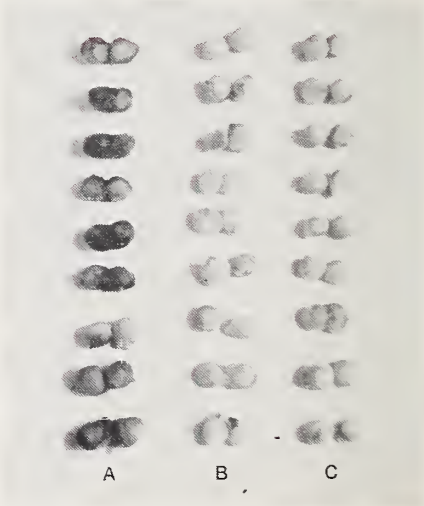
- *a double bond between carbons 1 and 2*
- *fluorine substitutions at* both *the 6-α, and the 9-α positions*
- *the addition of the acetonide at the 16-α, 17-α positions, thus providing one of the most potent topical corticosteroids available.*

How bioassay tests are used to "predict" therapeutic potential

Biologic assays are another tool used by researchers to help establish the relative activity of corticosteroids. To date no single method of assaying corticosteroid activity has emerged as the ideal "yardstick" for predicting therapeutic potential. Taken together, however, these methods have proved useful. When such tests are run on various corticosteroids, a definite order of corticosteroid activity becomes evident. Compounds with the highest order of activity may be expected to merit clinical trial to establish their high therapeutic potential. When assayed by these methods, fluocinolone acetonide (Synalar) emerges as one of the most active topical corticosteroids, milligram for milligram, available for clinical application today.



THE THYMUS INVOLUTION ASSAY[1-4] is run on adrenalectomized rats. The sizes of the glands are measured, and the degree of involution caused by the steroid is determined as an indication of its potency. In the above photo, the comparative involution of thymus glands achieved with hydrocortisone and Synalar (fluocinolone acetonide) is shown. Untreated controls (A) show normal size. Group B – injected with 1, 2 and 4 mg. of hydrocortisone – show progressively smaller thymuses as does Group C – injected with fluocinolone acetonide – but with only 1/500th the dose of hydrocortisone.



THE ANTIGRANULOMA ASSAY[1-4] also utilizes adrenalectomized rats. Granulomas are induced by subcutaneous implantation of cotton pellets on either side of the thorax. The degree of granuloma inhibition achieved by a steroid reflects its potency. The above photo shows the inhibition of granuloma formation achieved with hydrocortisone and Synalar (fluocinolone acetonide). Untreated controls (A) show large, red granulomas adhering to the pellets. Group B, receiving hydrocortisone and Group C, receiving fluocinolone acetonide, show little, if any, granuloma formation. Fluocinolone acetonide produced the same effect as hydrocortisone with only 1/500th the dose. This assay, as well as the thymus involution assay, measures systemic rather than topical corticosteroid activity. Nevertheless, results by these methods correlate well with other assays and with the milligram potencies of topical steroids in current clinical use.

Worldwide clinical experience confirms the predictable therapeutic potential of Synalar

It is particularly gratifying that the promise of the advanced chemical design and high order of bioassay activity of Synalar (fluocinolone acetonide) has been confirmed by widespread therapeutic application. Indeed, the impressive clinical response rate of Synalar has been documented in no fewer than 232 papers from 22 countries.

Representative Clinical Results with Synalar*

Efficacy Documented in over 4,000 Patients

Condition	Number of Publications	Number of Patients	Significant Improvement†
Contact Dermatitis	27	750	713
Eczematous Dermatitis	21	472	409
Seborrheic Dermatitis	18	442	426
Atopic Dermatitis	24	460	426
Psoriasis	36	1,699	1,510
Neurodermatitis	18	351	324
Total	144	4,174	3,808

*Complete bibliography on request.

†Expressed by the authors as excellent, very good, good, complete remission of inflammation, etc.

PRESCRIBING INFORMATION

For initiation of therapy: Cream 0.025%, 5 and 15 Gm. tubes, 425 Gm. jars; *for emollient effect:* Ointment 0.025%, 15 Gm. tubes; *for maintenance therapy:* Cream 0.01%, 15 and 45 Gm. tubes, 120 Gm. jars; *for intertriginous or hairy sites:* Solution 0.01%, 20 cc. and 60 cc. plastic squeeze bottles; *for infected inflammatory dermatoses:* Neo-Synalar® Cream (0.025% fluocinolone acetonide, neomycin sulfate, equivalent to 0.35% neomycin base), 5 and 15 Gm. tubes. CONTRAINDICATIONS: Tuberculous, fungal, and most viral lesions of the skin, (including herpes simplex, vaccinia, and varicella). Not for ophthalmic use. Contraindicated in individuals with a history of hypersensitivity to any of the components. PRECAUTIONS: Synalar preparations are virtually nonsensitizing and nonirritating. However, the solution may produce burning or stinging when applied to denuded or fissured areas. In some patients with dry lesions, the solution may increase dryness, scaling or itching. While topical steroids have not been reported to have an adverse effect on pregnancy, the safety of their use on pregnant females has not absolutely been established. Therefore, they should not be used extensively on pregnant patients, in large amounts, or for prolonged periods of time. Prolonged use of any antibiotic may result in overgrowth of nonsusceptible organisms; if this occurs, appropriate therapy should be instituted. When severe local infection or systemic infection exists, the use of systemic antibiotics should be considered, based on susceptibility testing. SIDE EFFECTS: Side effects are not ordinarily encountered with topically applied corticosteroids. As with all drugs, however, a few patients may react unfavorably to Synalar under certain conditions. The neomycin in Neo-Synalar Cream rarely produces allergic reactions.

REFERENCES: 1. Lerner, L. J., Bianchi, A., Turkheimer, A. R., Singer, F. M., and Borman, A.: Anti-inflammatory steroids: potency, duration and modification of activities. Ann NY Acad Sci 116:1071 (Aug. 27) 1964. 2. Idem: Comparison of anti-granuloma, thymolytic and glucocorticoid activities of anti-inflammatory steroids. Proc Soc Exp Biol Med 116:385 (June) 1964. 3. Ringler, A.: Activities of adrenocorticosteroids in experimental animals and man, in Dorfman, R. I.: Methods of hormone research, New York, Academic Press, 1964. vol. III. pp. 234-280. 4. Gubersky, V. R.: To be published.

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For inflammatory dermatoses... by any measure a topical corticosteroid of choice

Synalar® (fluocinolone acetonide)

Milligram for milligram one of the most active topical corticosteroids available

Rapid and predictable in antiinflammatory and antipruritic activity

Results often comparable to those of systemic corticosteroids with fewer hazards

John T. Mauldin, M.D.
President-Elect

GaMPAC—1968 AND BEYOND

FOUR-AND-A-HALF YEARS ago a group of doctors met in Savannah to give birth to the Georgia Medical Political Action Committee. Cynics in and out of the profession ridiculed it as offering little more than an emotional escape valve for physicians frustrated by the gathering clouds of federal medicine. Bolder critics described it as a temporary phenomenon and predicted it would survive no longer than it took Congress to enact Medicare.

The Baby on the Block

That was four-and-a-half years ago—the summer of 1962. And what has become of GaMPAC since? In a nut shell, the baby on the block has grown up to be a big boy. It has weathered two significant political years, 1964 and 1966, and is now recognized as perhaps the only means by which Georgia physicians can organize for truly effective political action and the consequential improvement of representative government in their own behalf and for their patients.

If GaMPAC has grown steadily since 1962, then 1966 was surely its banner year. Membership soared almost 500% over the preceding year and impressive successes were recorded at the polls in areas previously thought to be beyond reach. Of more lasting importance, however, was the fact that the politicians themselves woke up to the reality of the PAC movement and request for assistance pinpointed GaMPAC as a permanent political institution to be reckoned with.

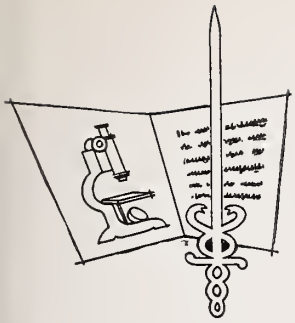
GaMPAC like any organization, however, can only be as strong as its members. Success in 1966 does not insure success in 1968 and beyond. The thing that will insure success, and the *only* thing that will, is continuity of support and participation by members during the "off years" as well as during the election years. In plain English this means we need to continue our "off year" contributions through membership in GaMPAC in preparation for the 1968 campaigns which will be in full swing in about 14 months.

Greater Political Involvement

The enactment of Medicare has not obviated the necessity for further political activity by physicians. On the contrary, Medicare was only the beginning, and a planned series of efforts to further regiment the profession makes the need for greater political involvement more apparent each day.

Through organization, your political activity can be multiplied many fold, resulting in real potency. It is doubtful that a comparable effort on an individual basis would. The time is past when we can continue to ask Congress to be our friend. The time has come when we must make certain that we elect a friendly Congress.

John T. Mauldin, M.D.
President-Elect
Medical Association of Georgia



CANCER PAGE

PUBLIC INFORMATION IN CANCER

John P. Wilson, M.D., *Atlanta*

To what extent the public should be informed in the area of medical knowledge has long been a subject of debate among members of the medical profession. In recent years the layman essentially has been taken into the full confidence of the medical profession regarding the nature and amount of technical information disseminated to the public. Almost every newspaper has a medical column in which some consultant dispenses daily medical advice for readers. In addition, major news agencies and magazines have regular departments to report the latest technical medical news. Many times laymen are given information (for example, that regarding gastric freezing) before information is dispensed widely to the medical profession itself. One of the current best sellers is a highly technical research project, *Human Sexual Response* by Masters and Johnson, which is available to the public. Certainly, there is no area of medicine which is hidden from the eye of the public.

Problems Created

That this creates problems is apparent to most physicians. It is the rare surgeon who has not been handed a newspaper clipping from a column of Dr. Alvarez stating that asymptomatic gallstones should not be removed after having advised a patient to have a cholecystectomy, or more recently, a news column reporting Dr. Crile's advice not to do radical mastectomy from a patient who has just had a radical mastectomy for cancer of the breast.

The need for public information and education has been, during the past ten to twenty years, a basic part of cancer control as proposed by the American Medical Association and the American Cancer Society. The proposition that cancer control depends on early detection and treatment and that early detection and treatment depend on an informed public is considered by most to be the major immediate measure by which mortality from cancer may be reduced.

Questions Raised

As occurs with most principles of surgery, we have heard in recent years voices raised questioning this basic idea. There are those who feel that perhaps a disservice is being done the public by "frightening" people with information about cancer. There have been questions raised about the actual curability of cancer and to what extent early treatment has reduced the mortality from this disease. Because of the frequent frustrating experience of treatment failure in cancer, it is quite easy to question seriously the efficacy of early treatment. However, while all types of cancer are not equally curable, there are certainly unquestioned improvements in some areas of cancer control, the most obvious of which has been the marked decrease in death from uterine cervical cancer by the use of routine Papanicolaou smears.

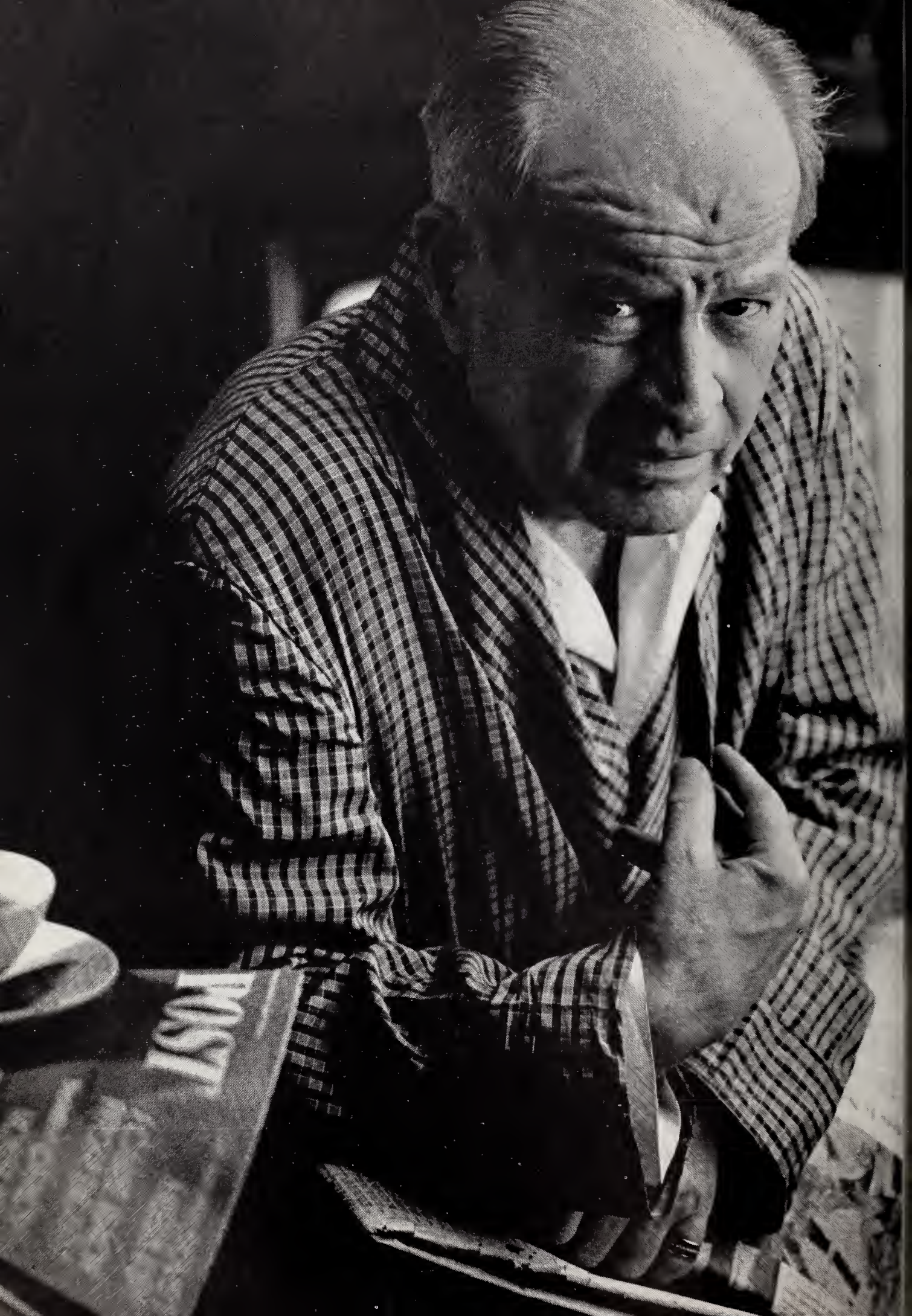
A vital part of medical progress is re-evaluation of principles and policies, and public information as pertains to cancer control is no exception. Such inquiries, however, must be tempered with the realization that ill-advised condemnation of basic principles can be confusing to the public and harmful to good medicine. It is still the opinion of most authorities that lay education is a necessary and vital part in cancer control, as it is in many areas of medicine. Our efforts in this direction must be continued even during periods of reassessment.

340 Boulevard, N.E.

Approved by the Professional Education Committee, Georgia Division, ACS.

PLEASE NOTE ERRATUM

In the January, 1966 issue of the *Journal of the Medical Association of Georgia*, the scientific article, "Blurred Vision and Systemic Medication," by P. Thomas Manchester, M.D., listed Penicillamine as a cause of glaucoma. This was an error, and Dr. Manchester has found no reference in which this drug has produced such a complication.


BUST

Posed by professional model

I'm supposed to get up and do things?

With my heart?

It's entirely natural—and may even be desirable—for the cardiovascular patient to be somewhat anxious about himself.

But when anxiety leads to unreasonable self-imposed limitations and restrictions . . . when it aggravates cardiovascular symptoms . . . when it interferes with restful sleep, measures to help alleviate the anxiety are probably in order.

One measure, of course, is reassurance. Another, adjunctive measure, is EQUANIL (meprobamate).

Over a decade of experience has shown that EQUANIL (meprobamate) is generally well tolerated as well as effective. Side effects are usually limited to transient drowsiness; serious, therapy-interrupting side effects are rare.

Cautions: Carefully supervise dose and amounts prescribed, especially for patients prone to overdose themselves. Excessive prolonged use may result in dependence or habituation in susceptible persons—as ex-addicts, alcoholics, severe psychoneurotics. After prolonged high dosage, drug should be withdrawn gradually to avoid possibly severe withdrawal reactions including epileptiform seizures. Side effects include drowsiness and, rarely, allergic or idiosyncratic reactions. These reactions, sometimes severe, can develop in patients receiving only 1 to 4 doses who have had no previous contact with meprobamate. Mild reactions are characterized by urticarial or erythematous maculopapular rash. Acute non-thrombocytopenic purpura with petechiae, ecchymoses, peripheral edema and fever have been reported. Meprobamate should be stopped and not reinstituted. Severe reactions, observed very rarely, include angioneurotic edema, bronchial spasms, fever, fainting spells, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case) and hyperthermia. Warn patients of possible reduced alcohol tolerance. Should drowsiness, ataxia, or visual disturbances occur, dose should be reduced. If symptoms persist, patients should not operate vehicles or dangerous machinery. A few cases of leukopenia, usually transient, have been reported following prolonged dosage. Other blood dyscrasias—aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis and hemolytic anemia—have occurred rarely, almost always in the presence of known toxic agents. One fatal case of bullous dermatitis following intermittent use of meprobamate with prednisolone has been reported. Prescribe very cautiously for patients with suicidal tendencies. Suicidal attempts should be treated with immediate gastric lavage and appropriate supportive therapy.

Contraindications: History of sensitivity to meprobamate.

Composition: Tablets, 200 mg. and 400 mg. meprobamate. Coated Tablets, WYSEALS® EQUANIL (meprobamate) 400 mg. Continuous-Release Capsules, EQUANIL L-A (meprobamate) 400 mg.

American Hospital Formulary Service Category No. 28:16.08

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to help relieve anxiety and tension occurring alone or secondary to organic disease

Equanil®
(meprobamate)

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SERVICE TO MEDICINE

THE GEORGIA HEART HOUR

Louis L. Battey, M.D., *Augusta*

SINCE ITS ORGANIZATION in 1948 the Georgia Heart Association has been active in the professional education of doctors, nurses and paramedical personnel in subjects of a cardiovascular nature. These activities have included annual scientific sessions, sponsorship of lectures at postgraduate meetings, distribution of educational materials, and sponsorship of continuing education courses through the American Heart Association.

New Possibilities

It is therefore a natural step for your heart association to avail itself of the new possibilities offered by the use of television. Since October, 1965 the Georgia Heart Hour has each month brought to the internist, cardiologist and general practitioner of Georgia the latest information on hypertension, strokes, arrhythmias, congestive heart failure, myocardial infarction and other similar cardiovascular problems. The format for these programs has been predominantly the symposium type discussion of a given subject by three or more recognized authorities. They are informal in tone and avoid the didactic lecture approach by the use of a moderator to direct questions and lead the discussions.

Video tapes have been obtained from many sources: Dr. Dale Groom, Professor of Medicine at the University of South Carolina School of Medicine; Bingham Associates Fund, The New York Academy of Medicine; Postgraduate Medical Education Department at University of Utah Medical Center; University of Pittsburgh School of Medicine; University of Oklahoma School of Medicine and others. Many institutions, including most medical schools, are now more active in production of video tapes and these will become increasingly available for use in the future.

Continuing Efforts

The Georgia Heart Association is a member of the Association of Medical Television Broadcasters. This group was formally organized in 1965 and now comprises virtually all medical schools and professional organizations utilizing television broadcasting for postgraduate education. This group has access to an expanding library of taped programs on medical subjects. The association is also active in exploring new ways to make television medicine more interesting and palatable to the physician. Your Georgia Heart Association plans to continue its efforts to bring the highest quality programs to its viewers.

The Georgia Heart Hour will continue to be televised over the Georgia Educational Television network the first Monday and Tuesday evening of each month beginning at 10:30 P.M. In the future it is planned also to sponsor a program on cardiovascular diseases directed to the lay public. Programs for the next nine months will cover such subjects as: The Use of Anticoagulants, Reversible Heart Disease, Congenital Heart Disease in Infants, Cardiac Pacemakers and Heart Surgery in Adults.

So relax in your favorite chair and join us each month on the Georgia Heart Hour. We hope you will and that you will write your comments, views, criticisms, etc. concerning our efforts.

1021 Fifteenth Street

Prepared at the request of the Committee on Professional Education of the Georgia Heart Association.

MEDICAL MOTION PICTURES, COLOR TV TO AGAIN BE FEATURES AT AMA ANNUAL CONVENTION

Medical motion pictures and color television will be a feature of the Annual Convention of the American Medical Association again this year.

The Convention is to be held in Atlantic City June 18-22, the Scientific Program at Convention Hall and nearby hotels and the House of Delegates at the Chalfonte-Haddon Hall Hotel.

Medical motion pictures have become an integral part of the Annual Convention program. Movies are carefully screened and selected for quality, content and diversity of subject matter. Some are chosen from the AMA library of medical motion pictures while others are picked from among films just completed. Several new films are usually shown for the first time at the Annual Convention. The total movie program is thus planned to achieve both variety and currency.

Medical motion pictures will be presented daily. At least five color television programs will be presented live, on a closed circuit from a Philadelphia hospital in cooperation with the University of Pennsylvania School of Medicine.

DEATHS

W. Ben Nalley, 44, Gainesville, died January 15, 1967, at his residence after a brief illness. He attended Gainesville public schools, was a graduate of Baylor School, Chattanooga, Tennessee, attended The Citadel, and was a graduate of Emory University. He was a member of SAE Fraternity.

Dr. Nalley was graduated from the Emory University School of Medicine in 1946 and interned at the Baroness Erlanger Hospital in Chattanooga, Tennessee. He then served a residency at the Good Samaritan Hospital, Palm Beach, Florida.

From 1948 to 1950 he served in the Army Medical Corps, part of that time as chief of obstetrics and gynecology at the 22nd General Hospital, Guam.

After his release from active duty as a Captain, Dr. Nalley opened his practice in Helen, serving the Hiawassee area as well. In 1953 he began his residency training in Baltimore, Maryland.

Dr. Nalley returned to the Northeast Georgia area in 1956 and resumed his practice in Gainesville as a partner of Dr. John K. Burns, III.

A member of the First Baptist Church most of his life, Dr. Nalley also was a member of the American Legion, Elks Lodge, Chattahoochee Country Club, and the Hall County Medical Society.

Survivors include his wife, Mrs. Frances Moore Nalley; three daughters, Misses Cathey, Nancy and Sally Nalley, all of Gainesville; his mother, Mrs. C. V. Nalley, Sr., Gainesville; four brothers, C. V. Nalley, Jr., Atlanta; Logan Nalley, Gainesville; Dr. James L. Nalley, College Park; Dr. Robert A. Nalley, Melborne Harbor Beach, Florida; a sister, Mrs. William A. Irvin, Philadelphia, Pennsylvania.

J. K. Burns, 74, of Gainesville, died January 14, 1967, at his residence. He was graduated from Davidson College in 1913, the Emory Medical School in 1917, and interned in Detroit.

After serving as a Lieutenant in the Army Medical Corps during World War I, he practiced with his father in Clarkesville for two years. In 1921, Dr. Burns purchased interest in Gainesville's Downey Hospital and was active in it until it closed and the new hospital was opened. He served on the Hall County Hospital Authority, was a charter member and past president of the Kiwanis Club, was a member of Masonic Lodge, the American Legion, Elks Lodge and Chattahoochee Country Club. He was a member and permanent Elder of the First Presbyterian Church. He practiced medicine in Gainesville for 43 years before his retirement in 1960.

Dr. Burns was a former surgeon for Seaboard and Southern Railroad, a member of the Hall County Medical Society and the American Medical Association. He was a fellow of the American College of Surgeons.

Dr. Burns is survived by his wife, Mrs. Mamie Lawrence Burns; a son, Dr. John K. Burns, III, Gainesville; a daughter, Mrs. Joseph Cannon, Orlando, Florida; a brother, William Brantly Burns, Atlanta; two sisters, Mrs. Troy Chastain, Atlanta; Mrs. I. H. Sutton, Clarkesville; and three grandchildren.

Frank Kells Boland, Jr., 60, physician and general surgeon in Atlanta since 1933, died January 12, 1967, at his home.

The native Atlantan was a graduate of the University of Georgia, receiving his medical degree from Emory University in 1931. He was a member of Trinity Methodist Church, of the Piedmont Driving Club and of the Ansley Golf Club.

His professional and fraternal memberships included the American and Fulton County medical associations, and he was a fellow in the American College of Surgeons.

Survivors are his widow, the former Loraine Heaton; a daughter, Loraine Boland; and a son, Frank Kells Boland, III, all of Atlanta.

Winston E. Burdine, an Atlanta psychiatrist and former national commander of AMVETS, died January 7, 1967, at his home. The 52-year-old Medical Director of Northside Manor Hospital, Atlanta, and owner of the Burdine Clinic, had opened the hospital, a mental health facility, on Juniper Street in Atlanta last year.

Active in civic and political affairs in Atlanta and Georgia, Dr. Burdine ran for lieutenant governor in 1962.

He was a member of the Advisory Commission of the State Pardon and Parole Board.

In 1958, Dr. Burdine was elected national commander of the AMVETS and was the first Southerner to be so honored. Before assuming those duties he had served as national surgeon and national vice commander of that organization.

A veteran of World War II, Dr. Burdine served as a surgeon in the Army Air Corps. He was a past post commander, state historian and state commander of the American Legion.

Born in Marble Hill, Georgia, Dr. Burdine held degrees from Mercer University, the University of Georgia, the Medical College of Georgia and the Woodrow Wilson College of Law.

He also studied at the George Washington School of Psychiatry and the St. Elizabeth Hospital in Washington, D. C., and formerly served as chief resident of psychiatry at Charity Hospital in New Orleans.

He came to Atlanta in 1953.

Surviving are the widow, the former Pauline Steidinger; and daughters, Mrs. Ben Underwood and Mrs. Tom Price, both of Atlanta; and brother, Essley Burdine, Decatur.

Joseph Eugene Mercer, 80, of Vidalia, died January 8, 1967, following a short illness. He was a native of Jackson County and a member of the Vidalia Methodist Church.

He was a general practitioner and had practiced in Vidalia for the past 48 years. He was a veteran of World War I and a member of the American Legion, Kiwanis Club, Masonic Lodge, the American, Southern, Georgia and Southeastern Medical Associations. He was also a physician for the Seaboard AirLine Railroad and the Georgia-Florida Railroad.

He is survived by his wife, Mrs. Frances Gay Mercer of Vidalia; a daughter, Mrs. Don L. Ricketson of Vidalia; a son, W. A. Mercer of Cartersville; a sister, Mrs. W. T. Blizzard of Hillsboro; three grandchildren and several nieces and nephews.

King Walker Milligan, 81, of Augusta, died January 11, 1967, in a local hospital.

Dr. Milligan had been a practicing physician in Augusta for 55 years and was a member of the Medical Association of Georgia, the Richmond County Medical Society, and a member of the Pharmaceutical Association.

He was a member of St. John Methodist Church.

Dr. Milligan attended John S. Davidson Elementary School, graduated from Richmond Academy, attended the University of Georgia School of Medicine and was graduated in 1908.

He was city physician for many years and was clinic registrar for a number of years.

He was named Georgia's General Practitioner of the Year in 1962. He was one of the pioneers in the field of clinic care in Augusta, and along with others, founded the clinic at the Medical College of Georgia.

Survivors include his widow, Mrs. Mary Eugenia Jones Milligan; one daughter, Mrs. Curtis Carter, Jr., Augusta; two sisters, Mrs. W. H. Roberts and Miss Elizabeth Milligan, both of Augusta; one brother, Lawrence A. Milligan, Augusta; five grandchildren, two great-grandchildren and a number of nieces and nephews.

Ernest B. Saye, well-known Southern physician, died December 26, 1966, at the Halifax Hospital, South Boston, Virginia, where he was a member of the staff. Dr. Saye was 86. He was the son of the late Dr. and Mrs. J. P. Saye He was married to the late Mrs. Elizabeth Darnell Saye.

Survivors include a daughter, Mrs. Hugh Henderson, Jr., and a granddaughter, Betsy Saye, both of Thomasville; brother, Maynard Saye of Ball Ground; sister-in-law, Mrs. Ben. F. Johnson of Atlanta; and a brother-in-law, Dr. J. S. Darnell of Jasper, Georgia.

PERSONALS

Fifth District

Sanford Matthews, an Atlanta pediatrician spoke on, "The Modern Woman—Mother or Martyr," at the Sisterhood Sabbath meeting held January 27, 1967, at The Temple, Atlanta, following the group's sabbath service.

Dr. Matthews also serves as chief of pediatric service at St. Joseph's Infirmary, is consultant for the crippled children's division, State Department of Public Health and medical director of its central seizure program.

Walker L. Curtis of College Park was named winner of the coveted Aven Citizenship Award at a meeting of the Fulton County Medical Society held January 26, 1967, at the Marriott Motor Hotel. Dr. Carl Aven presented the award to Dr. Curtis at the meeting attended by more than 300 physicians.

Also honored at the meeting was the society's new president, **William W. Moore, Jr.,** an Atlanta neurosurgeon.

Other new officers installed at the society's annual banquet were **Linton H. Bishop,** president-elect; **Robert L. Brown,** vice president; **F. William Dowda,** secretary-treasurer; **J. Frank Walker,** chairman of the board of trustees; **Peter Hydrick,** vice chairman; **Charles E. Harrison,** junior board member; and **Lester Forbes** and **Watts Lipscomb,** members of the Judicial Council.

Dr. Curtis was cited for his work with Boy Scout groups in south Fulton County, specifically his organization of the first Explorer Scout medical post.

Dr. Curtis has been a member of the National Council of Boy Scouts and holds scouting's highest award, the Silver Beaver.

John D. Thompson, Atlanta, has been elected Chairman-Elect of the Section on Obstetrics of the Southern Medical Association.

Sixth District

The Georgia State Obstetrical and Gynecological Sosiety has invited **Curtis F. Veal** of Milledgeville to become a member of the Society.

Seventh District

Recently elected officers of the medical staff of John L. Hutcheson Memorial Tri-County Hospital, Ft. Oglethorpe, for 1967 are **Leroy Sherrill,** Rossville, chief of staff; **Warren Terrell,** Rossville, vice chief of staff; and **Gordon L. Hixson,** Fort Oglethorpe, secretary.

Other members of the executive committee of the medical staff for 1967 are **C. W. Hawkins,** chief of surgical services; **T. W. Alsobrook,** chief of medical services; **Robert T. Jones,** chief of general practice; **F. Jones Smiley,** chief of obstetrical and gynecological services; **E. G. Johnson,** immediate past chief of staff; and **John C. Ellis,** chairman of the credentials committee.

Sam Braly, Dallas, Georgia, was sworn in as a member of the State Board of Medical Examiners, January 6, 1967.

Eighth District

S. H. Story has been named the new chief of staff at Pineview General Hospital, Valdosta. Dr. Story replaces **J. H. Brannen,** who held the position during 1966.

Other appointments include **Fred Smith,** vice chief of staff; **Dewey Barton,** secretary; **R. L. Stump, Jr.,** representative to executive and joint conference committee; **Alton Johnson,** pediatrics; **Van Bennett,** internal medicine; **William Retterbush,** surgery.

John Miller, obstetrics and gynecology; **James Stith,** laboratory; **David Branch,** orthopedics; **Charles Hodges,** anesthesiology; **F. G. Eldridge,** radiology; **Tom Smith, Jr.,** ear, eyes, nose and throat; **J. H. Brannen,** urology, and **V. C. Wade,** general medicine.

The answer may be yes... if they're not on Hygroton. For instance, a therapeutic dose of a short-acting diuretic may cost 3 times as much as an equivalent dose of Hygroton. With Hygroton, in fact, you can usually do the job with just one tablet a day or one every other day. It's no wonder that the trend has been away from short-acting, multiple-dose, high-cost diuretics.

You may hear that a short-acting diuretic was more effective in a 400 mg. (ten-tablet) dose than Hygroton in a 200 mg. (two-tablet) dose. If one considers maximum recommended doses for each product, tablet for tablet Hygroton was clearly superior. Two tablets of Hygroton were found to produce almost 40% more natruresis and 20% more weight loss than five tablets of the other diuretic.* Note that these are maximum recommended doses!

For effectiveness, economy, and convenience, therefore, Hygroton is the diuretic to choose to start with and the one to stay with.

*Brest, A. N., et al.: J. New Drugs 5:329, 1965.

Natruresis above control values after maximum recommended doses (mEq./24 hours) in "normal" patients

111	152
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48-hour weight loss after maximum recommended doses in edematous patients with congestive heart failure due to arteriosclerotic or rheumatic heart disease

1.84 lbs.	2.2 lbs.
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Indications: Hypertension and many types of edema involving retention of salt and water.
Contraindications: Hypersensitivity and most cases of severe renal or hepatic disease.
Warning: With administration of enteric-coated potassium supplements, the possibility of small bowel lesions should be kept in mind.
Precautions: Reduce dosage of concomitant antihypertensive agents by at least one-half. Discontinue if the BUN rises or liver dysfunction is aggravated. Electrolyte imbalance and potassium depletion may occur; take special care in cirrhosis or severe ischemic heart disease, and in patients receiving corticosteroids, ACTH, or digitalis. Salt restriction is not recommended.
Side Effects: Dizziness, weakness, nausea, vomiting, hyperglycemia, hyperuricemia, headache, muscle cramps, postural hypotension, constipation, leukopenia, thrombocytopenia, agranulocytosis, impotence, dysuria, transient myopia, skin reactions, including urticaria and purpura, epigastric pain, or G.I. symptoms after prolonged administration.
Average Dosage: One tablet (100 mg.) with breakfast daily or every other day.
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There is a high correlation between these *in vitro* findings and clinical results. Of 610 patients treated with Prostaphlin (sodium oxacillin), 89.8% were reported cured or improved, including those with staph infections resistant to penicillin G.[2] And since resistance does not appear to develop *in vivo,* therapy with oxacillin can be extended when necessary.

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PRESCRIBING INFORMATION: For complete information, consult Official Package Circular. *Indications:* Infections caused by Staphylococci, particularly those due to penicillin G-resistant Staphylococci. *Contraindications:* A history of severe allergic reactions to penicillin. *Precautions:* Typical penicillin-allergic reactions may occur. Safety for use in pregnancy and premature infants is not established. Because of limited experience, use cautiously and evaluate organ system function frequently in neonates. Mycotic or bacterial superinfections may occur. Assess renal, hematopoietic and hepatic function intermittently during long-term therapy. *Adverse Reactions:* Skin rashes, pruritus, urticaria, eosinophilia, nausea, vomiting, diarrhea, fever and occasional anaphylaxis. Rare cases of reversible hepatocellular dysfunction have occurred. Moderate SGOT elevations have been noted. Thrombophlebitis has occurred occasionally during intravenous therapy and leukopenia was noted in two cases. *Usual Oral Dosage:* Adults: 500 mg. *q.* 4 or *q.* 6 *h.* Children: 50 mg./Kg./day. *Usual Parenteral Dosage:* Adults: 250-500 mg. *q.* 4 or *q.* 6 *h.* Children: 50 mg./Kg./day. Treat beta-hemolytic streptococcal infections for at least 10 days. Give oral drug 1 to 2 hours before meals. *Supplied:* Capsules—250 and 500 mg. in bottles of 48. Injectable—250 mg., 500 mg., and 1 Gm. dry filled vial for I.M./I.V. use. For Oral Solution—100 ml. bottle, 250 mg./5 ml. when reconstituted. **A.H.F.S. CATEGORY 8:12.16**

References: 1. Abstracted from *Antibiotic Sensitivity of Staphylococci Studied from November 1962 through August 1965,* reported by Griffith, L.J., Staphylococcus Reference Laboratory, V.A. Hospital, Batavia, N.Y. 2. Data on file, Bristol Laboratories.

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DISABILITY AND REHABILITATION PROGRAM IN GEORGIA

In 1966 Georgians at the rate of 1,432 a month had applications processed for benefits offered by the Social Security Disability Program. Every claim involved at least one physician, a few as many as five. The number of applicants could go much higher in 1967.

Under the program, liberalized by Congress in 1965, any person protected by Social Security may claim benefits for a physical or mental impairment that is, or is expected to be, disabling for at least a year. Those who were disabled but have recovered may apply for benefits for all or part of the period of disability, provided they do so within 14 months of recovery. Heretofore, disability had to be permanent as well as total.

Childhood Cases

The new provisions also cover childhood disability cases, those who are disabled prior to attaining their eighteenth birthday and who meet the present standards by which a disability is determined.

Increasingly, treating physicians play a pivotal role in the program. Usually it is from his physician that a disabled person learns benefits are payable. More and more physicians are referring patients, especially those with financial problems, to the local office of the Social Security Administration.

Speeding Up of Process

Most physicians advise patients only that they may be eligible. After a patient files application, then do they assure their full cooperation in furnishing medical information essential for adjudication. By submitting information sufficient for an independent evaluation without further investigation, physicians can speed up the processing of claims and get benefits into the hands of their patient sooner.

Local Social Security representatives will not only help determine eligibility but will assist a claimant in filing his claim, even if it is necessary to go to him because he is house-confined, hospitalized, or in an institution.

In all cases claimants must furnish medical evidence of their illness or injury. Even though a formal request for medical information may originate at the local Social Security office, any charges made for examinations or reports at this juncture must be borne by the claimant.

Decision Can Be Made

Ordinarily a decision can be made on the basis of the information submitted by the treating physician, provided the information contains the history, physical findings, laboratory and special studies, diagnosis, treatment and prognosis. A decision can be made and a determination written the same day a claim is received by the initial reviewing authority. Otherwise, the case may be delayed as long as 45 days while additional information is sought from the treating physician or obtained through a consultative examination.

All claims filed in Georgia are initially reviewed by personnel of the Disability Determination Unit, a unit of the Division of Vocational Rehabilitation of the State Department of Education. Within the agency, qualified specialists in evaluation of medical, vocational and social factors work together with medical consultants in reviewing the whole case and arriving at a decision.

From the Disability Determination Unit cases are sent to Baltimore, Maryland, the headquarters of the Social Security Administration's Bureau of Disability Insurance, where they are again reviewed and, if necessary, further investigation made before the claimant is advised on the disposition of his claim.

Paying cash benefits to the disabled is not the only objective of the program. The program also aims at the rehabilitation of the disabled. While a person's claim is being processed, he also is considered for rehabilitation services. If his chances for restoration seem good, the Division of Vocational Rehabilitation will contact him.

Again the treating physician, having the confidence of his patient, plays an important role. He can and often does point out to the patient the obvious medical benefits the Social Security program provides while the patient attempts his comeback.

A disabled person, not fully recovered, may attempt work without risking his benefits. He will continue to receive his benefits for as long as a year even though he holds a regular job. In the event he is unable to continue working, he loses nothing, for his benefits continue.

If rehabilitation services are offered a disabled person —this is done only where the best medical evidence available indicates restoration practical—and he refuses the services, disability benefits can be withheld from him.

HIGHLIGHTS OF THE ACTION OF MAG EXECUTIVE COMMITTEE MEETING FEBRUARY 5, 1967

Legislative Committee Report, was received for information.

MAG Foundation Bylaws and Charter were considered and voted to recommend to Council at the March meeting the Approval of the Bylaws and Charter as revised.

Report on Georgia Medical Regional Program indicated that furnishings for space at MAG Headquarters was nearing completion. A Program Director has not yet been chosen and more applications are being solicited for the position. It is possible that a temporary director will be considered in order to start the program without a lengthy delay.

A Proposal to Expand Paramedical Recruitment was approved, which would authorize the Committee on Paramedical Study to set up a committee in each district to recruit more personnel in all areas.

Executive Committee will meet with Governor Maddox soon to discuss general health measures in the State and to offer to the Governor counsel relating to such activities.

State Board of Health appointment of Dr. Lamar Peacock was received for information. Dr. Peacock is a Vice President of MAG.

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Public Law 89-239

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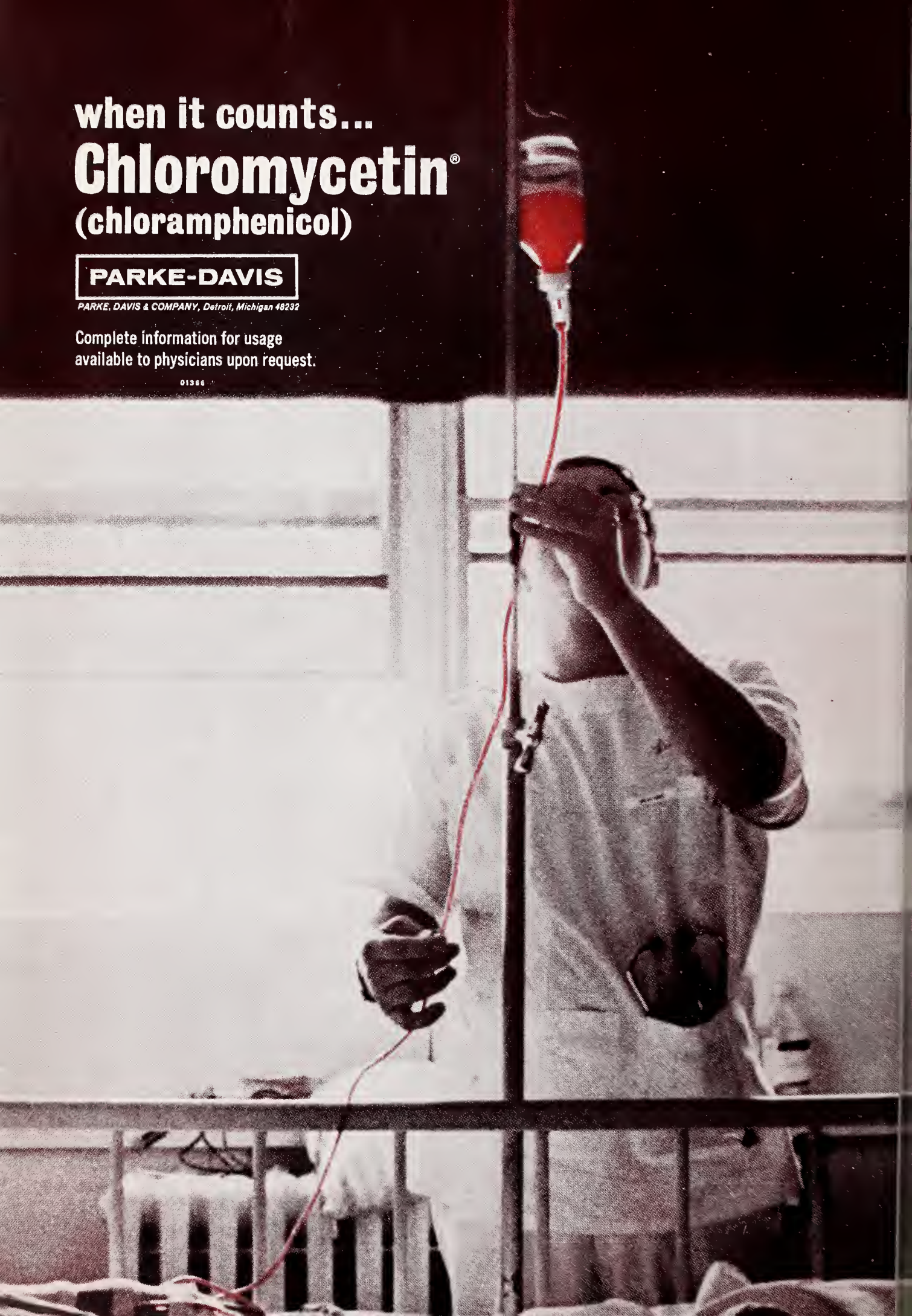

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Artwork by the Stein Typography Shop, Atlanta

INFLAMMATION: A cellular fight for life

A SYNTEX REPORT based on recently developed hypotheses about topical corticosteroids, including the cellular theories of inflammation by Thomas F. Dougherty, Ph.D., University of Utah.

You are looking at a fibroblast fighting for life. This cell—one of the most common found in connective tissue—has literally been poisoned by cytotoxins released from other cells that have ruptured. Soon, if the abnormal activity of this fibroblast does not cease, it, too, will rupture and die—one more casualty in the inflammatory wave of destruction precipitated by injury.

Until a short time ago no one had ever witnessed such a scene at the cellular level. Now, through advanced cinemicrographic techniques, it is possible to view and photograph the inflammatory process as produced experimentally in living animal tissue. This method permits new insight into the mechanism of inflammation and the role of corticosteroids in therapeutic management. Equally important, these techniques shed new light on factors that may make one corticosteroid more effective than another—factors that can be correlated with other chemical, biologic, and clinical parameters.

JOURNAL OF THE MEDICAL ASSOCIATION Georgia

GEORGIA REGIONAL MEDICAL PROGRAM

Louis L. Battey, M.D., *Augusta*
Member, Steering Committee

On October 6, 1965, Congress passed Public Law 89-239. The stated purposes of this law are:

"(a) Through grants, to encourage and assist in the establishment of regional cooperative arrangements among medical schools, research institutions, and hospitals for research and training (including continuing education) and for related demonstrations of patient care in the fields of heart disease, cancer, stroke, and related diseases;

"(b) To afford to the medical profession and the medical institutions of the Nation, through such cooperative arrangements, the opportunity of making available to their patients the latest advances in the diagnosis and treatment of these diseases; and

"(c) By these means, to improve generally the health manpower and facilities available to the Nation, and to accomplish these ends without interfering with the patterns, or the methods of financing, of patient care or professional practice, or with the administration of hospitals, and in cooperation with practicing physicians, medical center officials, hospital administrators, and representatives from appropriate voluntary health agencies."

The Organization

In January, 1966 the Georgia Advisory Group for the Regional Medical Program in Heart Disease, Cancer and Stroke was organized. It consisted of representatives from the Medical Association of Georgia, Georgia Medical Association, State Health Department, Georgia Dental Association, Georgia Pharmaceutical Association, Georgia Division of Vocational Rehabilitation, Georgia Heart Association, American Cancer Society—Georgia Division, Georgia Hospital Association, Georgia State Nurses Association, Georgia State League for Nursing, and from Emory University School of Medicine and the Medical College of Georgia.

A steering committee was named to prepare a planning grant application. On September 11, 1966, this application was approved by the advisory group and submitted to the National Institutes of Health. The Medical Association of Georgia was named as the applicant. Dr. Lamar Peacock spoke on behalf of the Medical Association of Georgia as follows: "With only one object in mind, and that is service to the community in providing better health care, the Medical Association of Georgia volunteers to serve as applicant for this grant. The Medical Association does this with the knowledge that we apply, representing not only the Medical Association but also Emory University School of Medicine and the Medical College of Georgia along with the various ancillary health organizations. It is our purpose to serve actively in every way possible to carry this program to completion."

Grant Approved

On December 27, 1966, the planning grant for the Georgia Regional Medical Program was approved for a twelve-month period with the assurance that it would be extended through June 30, 1969. Approximately $600,000 will be awarded during this two and one-half year planning period. It is hoped that before the end of this period one or more operational grant applications will be completed.

Unique Character

The planning phase of the Georgia Regional Medical Program will be centered in and derive its unique character from each community hospital in the state through a special local advisory group. The chief of the professional staff of each hospital in the region will be asked to submit the names of a group of people who are interested in the objectives of this program. A hospital administrator, a physician, a nurse and an interested member of the public will be the minimum number selected to represent the hospital. These individuals will be named by and through acceptable administrative mechanisms. For example, the physician would be selected by the hospital staff and will serve as chairman of the group; the administrator would be selected by the senior administrator of the hospital; the nurse would be selected by the organized nursing service, or if such is not present, would be selected by the hospital administrator acting jointly with the chief of the hospital staff. The member of the public would be se-

lected by the hospital governing board, and others in local official and non-official health agencies may be asked to serve. In many hospitals the chairman, a physician, will be the director of medical education and research for that hospital. State-wide meetings of all the various local chairmen will be planned twice yearly and subsidized under the planning grant. It is from these physicians, nurses, hospital administrators and related health personnel at the community hospital level that planning for the operational grant will take its structure and form. Every community hospital, large or small, will be invited to become, in effect, a local regional medical center for education. The needs of each local area will be studied first through its own advisory group. It is hoped that the local group will serve as a nucleus to stimulate a new interest in continuing education, a new consciousness of community health problems, and a new curiosity to evaluate, appraise and measure the effectiveness of our present-day approach to the problems of stroke, heart disease, cancer and related diseases.

Accumulation of Data

In effect, the efforts and energies of the Georgia Regional Medical Program during the next 30 months will be directed to accumulation of data. Expert consultants in other specialized fields such as audiovisual techniques, statistical analysis, population dynamics, health manpower training, hospital facilities, etc. will be utilized as necessary. Computer techniques will be available. New approaches to teaching using closed circuit television, programmed education, Telelecture, educational television, video tapes, etc. will be evaluated.

The needs of our region in terms of health manpower will be determined. The advisory group believes that more health personnel of all types are needed, and a need for new types of health personnel may become apparent from the planning phase. If so, then more training programs, both traditional and innovative may require support in the operational grant. Much time will be devoted to curricula for such training.

The Regional Medical Program of the State of Georgia will be utilized to improve patient care. The program should not in any way interfere with the current practice of medicine or hospital administration.

A method will be developed during the planning period to assess the prevalence of cardiovascular and neoplastic diseases. This will be done through acceptable cooperative efforts of every group, organization, agency and institution involved in the program.

Specific Areas

Such specific areas as the design and function of coronary care units, the need for diagnostic centers for hypertension, the increasing need for cardiac catheterization teams and for coronary cineangiography, the effectiveness of present day attempts at stroke prevention and stroke rehabilitation, the need for artificial kidney dialysis centers, the current status of early cancer detection and how it might be improved, the availability of new radiographic techniques of cancer detection and treatment, the use of cancer registries and other areas of patient care will be analyzed in terms of present availability and future anticipated needs. These needs will serve as a basis of the operational grant application which will be structured on data accumulated from every level of medical care, but primarily from the physician, nurse, hospital administrator and allied health personnel related to the local community hospital.

In summary, it is the intent and sincere desire of the members of the Georgia Regional Medical Program advisory group that this approach, during the planning phase, will seek out and find those interested individuals all over the state who will be anxious to take part in what may well be our greatest opportunity to achieve the best of medical care for all patients utilizing the regional and the truly cooperative approach.

OBSTETRICAL CONFERENCE SET FOR EMORY

"Hypertension in Pregnancy" is the title of Emory's Department of Gynecology and Obstetrics Postgraduate Conference scheduled for May 2-3, 1967. Guest Faculty for the conference will include Dr. Russell de Alvarez of Temple University, Dr. Iverson Bryans of the Medical College of Georgia, Dr. Leon Chesley of State University of New York, Dr. Charles E. Flowers of Baylor University and Dr. William Mengert of the University of Illinois.

Physicians desiring additional information may write *GYN-OB Postgraduate Education, 69 Butler Street, S.E., Atlanta, Georgia 30303.*

The Conference, to be held in the main auditorium of Grady Memorial Hospital, is supported by a grant from the Children's Bureau of the Department of Health, Education and Welfare.

REGIONAL MEDICAL PROGRAMS—A PROGRESS REPORT

William D. Mayer, M.D., *Bethesda, Maryland*
Associate Director
Division of Regional Medical Programs

It is a very real pleasure to be with you this afternoon. I have looked forward to this meeting with great enthusiasm for many reasons. The topics of your discussions happen to be of very real interest to me and I have enjoyed immensely the opportunity to participate. Your first conference stimulated a great deal of interest around the country (I heard about it in San Francisco from an individual from Chicago), and I always enjoy discussing Regional Medical Programs.

What I would like to do in this presentation is to:

1. Provide some overview concerning Regional Medical Programs.
2. Review briefly the progress that has occurred in the last year.
3. If time permits, indulge in some personal speculations about the future.

Through This Device

I will not take the time to review the Report of the President's Commission on Heart Disease, Cancer, and Stroke from which the Regional Medical Programs take their beginning, nor will I go back through the legislative history that was written in the Spring and Summer of 1965, as the Bill was modified in its passage through Congress. I would, however, like to spend a few minutes discussing Public Law 89-239 (the Heart Disease, Cancer and Stroke Ammendments of 1965) which was signed into Law by President Johnson on October 6 of that year. Through this device we may be able to clarify some of the issues concerning what Regional Medical Programs are, and what they are not.

The primary purposes of the Law are contained in two sentences in Section 900, which, with your indulgence, I would like to read to you.

Section 900. The Purposes of this title are:

"(a) Through grants, to encourage and assist in the establishment of regional cooperative arrangements among medical schools, research institutions, and hospitals for research and training (including continuing education) and for related demonstrations of patient care in the fields of heart disease, cancer, stroke, and related diseases;

"(b) To afford to the medical profession and the medical institutions of the Nation, through such cooperative arrangements, the opportunity of making available to their patients the latest advances in the diagnosis and treatment of these diseases;

The two key assumptions on which these purposes are built are:

(1) That there are differences in the quality of diagnostic and treatment capabilities available to different patients within this Nation, in the area of heart disease, cancer, stroke, and related diseases;

(2) That through the mechanism of regional cooperative arrangements of the people, institutions, organizations and agencies involved in health in that region that these differences can be lessened.

In one sense the implementation of P.L. 89-239 concerns itself with the "diagnosis and treatment" of these two assumptions. On a regional base, the differences in diagnostic and treatment capabilities are to be sought out in the planning phase of the program, and in the operational phase, proposed pilot projects constructed to diminish these differences are to be tested. Thus, planning relates to the diagnosis of the differences, and operation to trials in forms of therapy designed to alleviate the differences. The broad categorization of the diagnostic and therapeutic modalities are listed in 900 (a) of the Law as: "Research and training (including continuing education) and for related demonstrations of patient care. . . ."

Presented at the Second Georgia Conference on Medical Education, March 4, 1967, Callaway Gardens, Pine Mountain, Georgia.

I suspect the three key words in the law may be "Regional Cooperative Arrangements." The law defines the cooperative arrangements in several ways—

First, in the purposes that I have already related to you: "Regional cooperative arrangements among medical schools, research institutions and hospitals."

Secondly, in the definition section of the law it is stated that a Regional Medical Program must "consist of one or more medical centers, one or more clinical research centers, and one or more hospitals."

Thirdly, the law provides for a Regional Advisory Committee which is broadly representative of the groups involved in health affairs in the region. I will come back to these groups more specifically later. However, I should point out that the law requires that the Regional Advisory Committee must approve any operational grant under the program, and hence provides a mechanism of insuring that these groups have had an opportunity for significant input. I might add that the National Advisory Council on Regional Medical Programs have in their interpretations to date looked upon the Regional Advisory Committee as a very real factor in assuring cooperative arrangements.

Not a National Program

I said originally that there were probably three key words in the law—*regional* cooperative arrangements. I have mentioned the cooperative arrangements; I would like now to speak briefly about the word *regional*. For what we are talking about are Regional Medical Programs and not a national medical program. Although the National Advisory Council and the Public Health Service cannot delegate their basic responsibility and accountability for the wise expenditure of federal funds, the law assumes that the region itself is in the best position to determine how these broad purposes are best carried out. With this comes the responsibility of the Region to define its needs and construct meaningful programs to meet those needs. Indeed, the Regions have assumed such major initial responsibilities as defining themselves—not only as to who should initially participate in the program but also in defining initial geographic boundaries. In other words, within the broad constraints of the law, the regions have defined themselves. They have not been defined at the national level. This has resulted in such variations in population base as a region which represents essentially the State of Vermont with approximately 550,000 people, and another which represents the State of California with approximately 18.6 million. On the geographic side, we have the situation in upstate New York with essentially a Buffalo, Rochester, Syracuse, and an Albany region, where in the West there is the single WICHE region consisting of the States of Wyoming, Idaho, Montana and Nevada. In each of these instances there are good reasons determined at the regional level for the particular approach taken.

A Cooperative Arrangement

Thus Public Law 89-239 addresses itself to the relation of new knowledge and skills in heart disease, cancer, stroke and related diseases to the application of such new knowledge and skills eventually to all people of the nation. It addresses itself to the development of cooperative arrangements among the existing health professions, institutions, organizations and agencies to plan, make decisions and share resources on a regional basis rather than a federal basis. Inherent in that cooperation and cooperative activity is the strong need to avoid dominance or controlling force of only one institution or type of institution—whether they be medical society, medical schools, health departments, hospitals or any other single group. The law provides for funds to plan regional medical programs and for pilot projects in the operation of regional medical programs. It establishes a grant program, not a formula program. It addresses itself to the strengthening of existing institutions rather than a creation of new ones. Its dollars are not to substitute for existing dollars, but are to be additive to them. There are no funds provided by the law for new construction and its funds are not to be used primarily for patient services, assuming that those monies will come from other resources. This then is Public Law 89-239. We can return to it if you desire during the discussion period to follow up on any questions you may have about the law or its interpretation.

In the First Year

I would like to turn briefly now to what has happened in the first year of the program. In the Division we have defined as a starting point the appointment of Dr. Marston, as Director on February 1, 1966. So we are only one month past our first birthday. In that year, there has been a great deal of activity. The National Advisory Council has met five times, and at the last four of these meetings has reviewed planning grant applications.

Thus, as of today, 34 planning grants for Regional Medical Programs have been awarded, and another 14 are currently pending or are in the review process. These 48 include regions which represent over 90% of the nation's population. As I have indicated earlier, the size and shape of the regions have varied considerably. The average first year award of the 34 approved grants has been approximately $350,000.

This amount has varied considerably as well, dependent in part on the size of the region and the relative capacity of the region to mobilize its resources to meet the challenges of the program.

The initial planning activities of the Regional Medical Programs have generally included four major types of functions:

(1) *The organization and staffing of a planning resource:* This includes the further development of the organizational structure originally derived in the preplanning or pre-application phase. It also includes the recruitment and establishment of the basic staff who will carry out the planning. In some instances, these are individuals who will be functioning in a part-time capacity. Included in this group have been practicing physicians, medical school faculty members, hospital administrators, allied health personnel, epidemiologists, statisticians, sociologists, economists, educators and many others. Not infrequently the universities in the region have been relied upon in obtaining or providing part-time personnel in some of the scarce manpower areas. In some instances private firms have been called upon to provide competencies in such areas as computer technology, operations research and systems analysis.

(2) The second general category of activity that we have seen develop is that of studies to collect and analyze data on resources and needs. Most common surveys have dealt with the collection of data on health manpower, facilities, specialized capabilities, patient flow patterns, incidents and prevalence of heart disease, cancer, stroke and related diseases, educational resources, etc. This information will be utilized, not only as a basis of future planning, but also will be the baseline against which changes will be measured in the future.

(3) The third general activity we have seen is the development of activities to strengthen communication and relationships between the health organizations and groups of the region. These are being accomplished by (a) employment of liaison personnel, (b) the organization of task forces, (c) the conduct of workshops and conferences, (d) the planning and development of joint operational programs, (e) and varied other devices. In addition to activity concerning intra-regional relationships, considerable effort is going into the development of closer inter-regional relationships. Geographic boundaries established in initial planning grants may well change significantly as data from the planning process are developed. It may also become apparent that some activities such as certain aspects of continuing education may be better accomplished on an inter-regional rather than an intra-regional base.

FIGURE 3

Map showing 34 Regional Medical Programs which had received Planning Grants as of March 1, 1967.

(4) The fourth general activity we have seen is the preparation of specific proposals for operational projects, including initiation of some feasibility studies which may be carried out as a part of initial planning.

A principal feature of the planning under Regional Medical Programs is that it is directed for ultimate action in the operational phase. It is expected that planning will continue throughout the life of Regional Medical Programs, constituting the basis of all future activities. However, pilot projects will be initiated in early operational grant requests when planning for them is completed. In other words planning will not go on to completion, stop, and then full blown total operational activity occur. Rather they will overlap each other and operational programs will develop gradually over time.

These general four activities are not meant to be a complete résumé, but I hope they may provide sufficient background to act as a focus of the discussion later. A further part of that background might be the following information taken from an analysis of the 34 approved grants and the 14 currently under review.

Normally Beyond

The applicant organization of a regional medical program is somewhat unique in that it is assuming responsibility and fiscal accountability for activities that are normally beyond its purview. In the normal NIH research grant for example, the grant is made to an institution in which the research would normally be carried out physically and has as its principal investigator, the individual who as a part of that institution will actually be doing the research. In our program, as in all others, there must be a single institution or organization (the applicant) that is

fiscally responsible for the program, but many of the activities will be carried on under the program outside the physical and administrative boundaries of the institution or organization. The applicant then is really functioning as a representative of the entire region. This fact has resulted in some interesting relationships. Of the 48 applications mentioned, the applicant was a medical school in 29. In 14 cases, the applicant was a non-profit agency, and 12 of these 14 were newly established to serve the particular function of administering the regional medical program. In one case (of the 48) a governmental health agency was the applicant, while in three instances a medical society or foundation related to a society is the applicant.

As you recall I indicated earlier that the Regional Advisory Group is looked upon as having major responsibility in the program.

The state health officer or his representative has been involved in almost every instance as have representatives of the heart association and cancer societies.

An Overview

This then is an overview of what has happened to date. The future will presumably bring a completion of the coverage of the remaining 10% by planning grants, a continuation of planning activities in all areas and the beginning of early operational activities. Four operational grants have already been submitted, but no awards have been made as yet so it is difficult to predict what the future will bring in terms of direction of the program. This determination will be made by the regions—for, as I indicated earlier, we are involved with a regional medical program, not a national medical program in which all of these things have been predetermined. However, some general issues have been raised by the operational grants which are perhaps worthy of comment in that they may provide a skeleton on which to look at projections for the future.

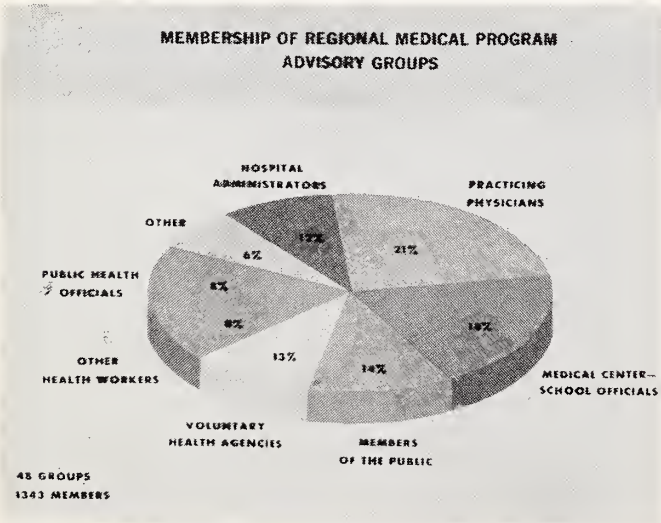

FIGURE 1

Membership of Regional Medical Program Advisory Groups.

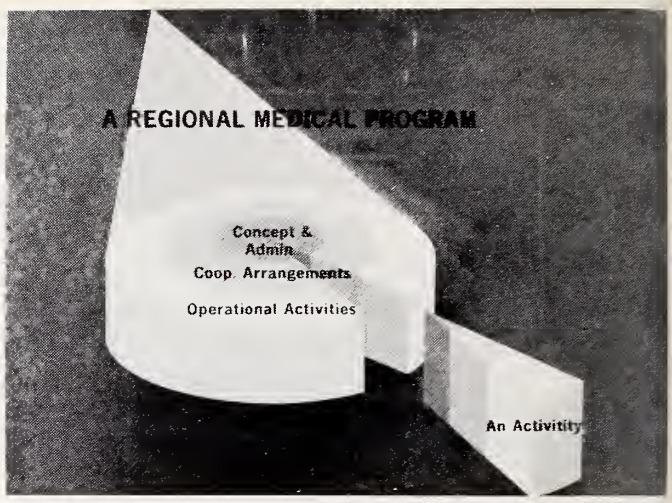

FIGURE 2

Visual conception of a Regional Medical Program.

The review of the first operational proposals has raised sharply the question of what methods should be used to evaluate such applications. Each is characterized by numerous specific activities within the overall proposal. However, a regional medical program must be more than a collection of projects. The review process, therefore, must focus on three general characteristics of the total proposal which separately and yet collectively determine its nature as a comprehensive and potentially effective regional medical program.

The first determination which must be made relates to the core concept of the regional medical program. Is there a unifying conceptual approach to the program? Are there administrative and coordinating mechanisms involving the health resources of the region, which can make effective decisions and relate those decisions to regional needs? Is there sufficient key leadership to accomplish these goals?

The Nature and Effectiveness

After having made this kind of determination about core activity the next step widens the focus to include both the nature and effectiveness of the proposed cooperative arrangements. What has been the degree of involvement and commitment of the major health resources? How effective has the regional advisory group been in truly representing cooperative arrangements? What degree of extension of cooperative arrangements has occurred since the initiation of the planning grant? Is it anticipated that the initial cooperative arrangements will hold up under the inevitable stresses of determinations concerning operational activities? This latter question may be extremely important for it may be quite a different thing to

agree to cooperate in planning as opposed to cooperation in actual functioning programs.

If both of the two previous evaluations are favorable, the operational activities can then be reviewed individually and collectively. Each activity will be judged for its own intrinsic merit, for its contribution to the cooperative arrangements and for the degree to which it includes the core concept of the regional medical programs. It should also fit as an integral part of other operational activities and surely must contribute to the overall objectives of the regional medical programs.

I bring these issues out because it is important to understand that the regional medical programs are not simply another kind of mechanism of funding individual projects. It does represent a new kind of conceptualization in the approach to health care and education. Whether it is capable of serving this function only time will tell. The activities of the last year that have been occurring around the country are certainly encouraging. It appears that those of us who are involved in health can come together in a cooperative fashion to provide an approach that is far greater than simply the sum of the disparate parts.

The Specifics

The specifics of the future are unclear. They will be determined by the regions themselves as they make decisions about their individual needs, and make proposals as to how they will meet these needs. I had the opportunity in October of this last year to hear Dr. James Shannon, the Director of the National Institutes of Health, give the Allen Gregg Memorial lecture at the annual meeting of the Association of American Medical Colleges. In that distinquished lectureship, Dr. Shannon reviewed the impact over the last 20 years of the National Institutes of Health on biomedical research and on the health of this nation. The impact has been very real indeed. It is my own anticipation that 20 years from now we will look back on regional medical programs as having an impact of the same kind of magnitude with very significant effects on the health care and health education activities of this nation. I say this because I feel that regional medical programs constitute the right instrument that has occurred at the right time in the overall development of American medicine and medical education. It has come at a time of the Coggeshall Report, at a time of the Report of the National Commission on Community Health Services, at a time of the Millis Commission Report, and at a time of the Willard Committee Report. These things which you have been discussing today are related in a very real way to regional medical programs, in that they represent responses to the same basic stimuli—that is, the desires of the American people not only for increased quantity, but perhaps more importantly, improved quality of health care.

An article in *Lancet* in October, described regional medical programs as an American catalyst. This, I believe, is an apt description, for what is being formulated is not a gigantic monolith which is to be superimposed upon the health care system of the United States, but rather a catalyst which hopefully will support the activities of those currently carrying out health care in a way which will assist them on a regional base, through cooperative activity in being more effective in accomplishing their goals.

Whether it will be successful in accomplishing this task will be determined by the regions themselves. The potential is there. I personally hope that it is realized.

Thank you very much. It has been a real pleasure being here.

PROGRAM IN MEDICAL LIBRARIANSHIP TO BE INITIATED BY WESTERN RESERVE UNIVERSITY

A training program in medical librarianship and communication in the health sciences will be initiated by the School of Library Science of Western Reserve University in July, 1967 with the support of a five-year grant of $377,915 from the U.S. Public Health Service through the Extramural Program of the National Library of Medicine. The program, leading after one year to the degree of M.S. in Library Science, will provide training in both traditional and automated methods of information processing and dissemination within the context of medical libraries, organization of health care and medical research. In addition to courses in information retrieval systems, library automation, and information centers and services, trainees will be offered a specialized sub-curriculum in which they will be introduced to the objectives, organization and functions of the several types of health sciences libraries. The program will utilize the resources and facilities of the School of Library Science and its Center for Documentation and Communication Research, the School of Medicine and the Cleveland Health Sciences Library on the Western Reserve University campus. Six stipends of $2,400 plus dependency allowance and full payment of fees will be available to applicants of excellence and potential. For further information contact the Program Director, Professor Alan M. Rees, School of Library Science, Western Reserve University, Cleveland, Ohio 44106.

For Your MAG 1967 Annual Session Hotel & Motel Reservations

APPLICATION FOR HOTEL AND MOTEL ACCOMMODATIONS
Medical Association of Georgia 113th Annual Session
April 30-May 2, 1967—Atlanta, Georgia

A HOUSING BUREAU has been established for your convenience in making hotel and motel reservations for the 1967 Annual Session of the Medical Assocation of Georgia. Comparable room rates and accommodation information is listed. *Please Use the Reservation Form below:* (1) specify your first, second and third choice hotel or motel; (2) anticipated date and hour of arrival; (3) date and approximate hour of departure; and (4) the names and addresses of all persons who will occupy the accommodations. *All reservations must be cleared through the Housing Bureau as the MAG room requirements necessitate the holding of these "blocks of rooms" for the MAG membership.* Please *do not* write the hotel of your choice—as only the Housing Bureau can reserve space for you in the MAG block of rooms. Since all requests for rooms will be handled in chronological order (first come—first served), applications should be mailed as early as possible to secure the accommodations desired. All reservations will be confirmed. *Please also note that the MAG reserved "block of rooms" will be released April 14, 1967 and no reservations after that date will be processed by the Housing Bureau.*

Marriott Motor Hotel: Cain and Courtland Streets (MAG-250 rooms); **Single $14 to $18; Double 18 to $22; Twin $18 to $22**

Holiday Inn Downtown: 175 Piedmont Street, N.E. (MAG-75 rooms); **Single $11.50; Double $14.50; Twin $16.50**

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THE NAME OF EACH HOTEL GUEST MUST BE LISTED. Include all names of all persons for whom you are requesting reservations and who will occupy the room (s):

Name of Occupant (s)	Address
.....	.....
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.....	.....

Individual Requesting Reservations

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If hotels or motels of your choice are unable to accept your reservations, the Housing Bureau will make reservations to fit your specifications elsewhere.

INNOVATIVE PLANS FOR THE GEORGIA REGIONAL MEDICAL PROGRAM*

■ The concept of local advisory groups representing each hospital or similar unit in a Georgia region is explained.

A REPRESENTATIVE of each organization and institution in the Advisory Group, which is broadly representative, was asked to describe the current activities in the field of education, patient care and research as related to heart disease, cancer and stroke. These data served as background information which proved to be vital to the planning group and enabled them to *move the program from the pre-planning state to the planning phase*. With this information it was possible to develop a plan that would

a) *correlate* the activities of the various groups, and
b) *extend* the activities of the various groups.

The Advisory Group recognized the *absolute necessity of correlating* the current activities by developing cooperative arrangements among the organizations represented as the Advisory Group. The Advisory Group also recognized the *desirability of being as creative and innovative* as possible in extending the activities of the groups involved. Accordingly, the following overall plan of development is presented as a creative approach to the problem. The plan, stated simply, will form the skeleton on which the remaining portion of the application will hang. The plan will accomplish many of the objectives of the Regional Medical Program. It will demonstrate cooperative arrangements among all groups involved in the fields of heart disease, cancer and stroke. Its long range effect will be the improvement of the care of patients in the region. The plan will break down the barriers that sometimes exist between medical centers and the practitioner in the small town. Therefore, the plan takes into account that new knowledge must flow from the medical centers to every area of the region. Equally important, the knowledge and needs of the practitioner and others in the small town must flow to the medical centers. The plan will offer benefits to the smaller towns and practitioners (and in turn to their patients) that are not available now. The plan will enable the members of the local advisory group to recommend their own local program. The overall aim of the plan is to achieve excellence.

University Without Walls

Regarding the creative portion of the plan, the Advisory Group recognizes that the vast majority of physicians, nurses and others involved in this program relate themselves to one or more hospitals. Therefore, each hospital in this region has a vital role in this program and in the future of medicine. This includes the large hospital, the small hospital, the hospital in the medical center, and the hospital remote to the medical center. There are approximately 15,500 general hospital beds in Georgia—and about 177 general hospitals. Over 3,000 physicians serve on the staffs of these hospitals. Therefore, the Advisory Group has devised a plan to emphasize the role of hospitals (and similar units) in the region. The hospital will become a central focal point through which the objectives of the Regional Medical Program will be carried out. For example, every hospital will become an adequate teaching hospital. This does not imply that medical students, interns and residents need to be present. It does imply that the physicians, nurses, dentists, pharmacists, administrators, members of the public and all the allied health professions** shall organize themselves into an educational program. During the planning stage of the grant the chief of the professional staff of each hospital in the region will be asked to submit the names of a group of people who are interested in the objectives of this program. A hospital administrator, a physician, a

* *Excerpted from the Georgia Regional Medical Program Application for grant awarded January 1, 1967.*

** *Allied health professions include such personnel as nurses aides, technicians, dietitians, psychologists, physical, occupational and speech therapists, social workers and all others who are now or may be in the future related to the care of patients.*

nurse and an interested member of the public will be the minimum number selected to represent the hospital. These individuals will be named by, and through, acceptable administrative mechanisms. For example, the physician would be selected by the hospital staff and will serve as chairman of the group; the administrator would be selected by the senior administrator of the hospital; the nurse would be selected by the organized nursing service, or if such is not present, would be selected by the hospital administrator acting jointly with the chief of the hospital staff. The member of the public would be selected by the hospital governing board. It is obvious that the group representing the hospitals should include all of the individuals interested in health care in the community and will be, in reality, a local replica of the Regional Advisory Group. The chairman of this group will meet with colleagues with similar assignments twice a year and will be encouraged to:

a) form a local group that not only includes those mentioned on this page but also any other individuals who will be interested in the Regional Medical Program including all allied health personnel.

b) create an educational environment for the education of physicians, nurses, dentists, pharmacists, allied health personnel, and interested members of the public at the local level.

c) utilize the group for the collection of pertinent data such as equipment needs, personnel needs, etc.

d) work closely with adjacent areas and be especially urged to cooperate with the small hospitals in his area that do not have organized hospital staffs. (In this way no area in this region will be excluded from participation in the Regional Medical Program.)

During the planning phase of the grant the following five problems will be studied:

1. Many hospitals in the rural areas of Georgia do not have an organized hospital staff; in fact, these small hospitals may have no more than one or two physicians. It will be necessary to identify these hospitals and to develop relationships between these hospitals (the physicians, nurses and others related to them) and nearby hospitals of larger size.

2. Several cities in the state of Georgia have more than one hospital. It will be necessary to study the activities of each of these hospitals in the area of education, health manpower training, patient care and research to develop a working relationship of each hospital with the other. This background information will be important during the operational phase of the grant as it would be unreasonable to duplicate all types of expensive equipment for all hospitals.

3. During the planning stage of the grant the feasibility will be explored of establishing a system that relates the two medical schools and certain of the larger hospitals in the region to the smaller hospitals.

4. During the planning period of the grant a survey will be made of the nursing homes in the region. At the present time a number of new nursing homes are being planned, and because a large number of the patients residing in such homes will have heart disease, cancer and stroke and also because some physicians and nurses relate to these facilities rather than to hospitals, it follows that nursing homes must be included in a Regional Medical Program. During the planning period methods will be sought that will allow the patients, physicians, nurses, and allied health personnel to be related to the Regional Medical Program.

5. Methods will be sought during the planning stage of the program that will allow the physicians, nurses and allied health personnel associated with local health departments located throughout the state, to be involved in the Regional Medical Program.

The individuals representing each hospital will not act as separate isolated units but will relate to the total regional program in two ways:

1. The Program Director of the Regional Medical Program will call all the chairmen of the local groups together at least twice each year to discuss the progress in the entire region and therefore encourage the full development of the programs in all areas.

In addition, the Program Director will communicate frequently with the chairmen of the hospital groups to obtain certain information vital to the planning requirements and give the information he has to the group.

2. The feasibility of developing a communication network utilizing the telephone (such as the Tele-lecture set) to be used in the community hospitals and other facilities in the region will be studied during the planning period. This network would enable the hospital to communicate with any other hospital in the region or, for that matter, in the entire nation. The interested local group would be able to improve their own hospital conferences and improve communication enormously. (The use of television will also be explored during the planning period. The objective would be to extend the technique of television as far as possible but with the knowledge that it would not have the same characteristics as the Tele-lecture set.)

The local hospitals, local nursing homes, local health departments, and rural areas of the region will have the opportunity to grow in excellence through the plan. This plan offers the development of a "Uni-

versity without walls." Information will be exchanged through periodic discussions among the hospital representatives and eventually through modern communication techniques. This plan offers a method of "data collecting" and also offers distinctive advantages as a framework onto which an operational program will function. This plan offers a method of local planning, local involvement and interest. The Advisory Group recognizes that most programs fail unless there is active participation of the groups involved. This is especially true of educational activities.

HIGHLIGHTS OF THE ACTION OF MAG EXECUTIVE COMMITTEE MEETING MARCH 18, 1967

This summary is being published so that the MAG membership may be advised in brief of the actions of the Association's Council and Executive Committee. It covers only major actions and is not intended as a detailed report. Full minutes of these meetings are available upon any member's request to the MAG Headquarters Office.

The Voluntary Health Agencies Chairman appeared to discuss an application by the Georgia Society for Crippled Children and Adults for a grant and expressed no objection to the Society making application if first approved by local Medical Societies. The Executive Committee approved the project for DeKalb and Fulton Counties and gave tentative approval for Cobb, Gwinnett and Clayton Counties pending approval of these respective County Medical Societies.

The School Child Health Committee referred to Executive Committee for consideration a proposed statewide Measles Vaccine program. Executive Committee approved the eradication of measles in whatever means the Committee considers appropriate. Executive Committee also directed that a newsletter be directed to County Medical Societies pointing up this program.

Negotiations Relative to Military Medicare contract were discussed. The expansion of the program has created a need for additional space and office personnel. The program will continue to operate out of the MAG Headquarters Office.

A Liaison Committee was appointed to work with John Hancock Company relative to the Medicare Program.

HIGHLIGHTS OF THE ACTIONS OF THE MAG COUNCIL MEETING MARCH 18-19, 1967

This summary is being published so that the MAG membership may be advised in brief of the actions of the Association's Council and Executive Committee. It covers only major actions and is not intended as a detailed report. Full minutes of these meetings are available upon any member's request to the MAG Headquarters Office.

MAG Annual Session site for 1968 has been changed from Savannah to Augusta due to scheduled incompletion of new hotel facilities in Savannah. The dates for the 1968 meeting are May 5-6-7.

Office of Economic Opportunity proposed programs were discussed and Council disapproved a planned program in which OEO and the Medical College of Georgia were interested in Bulloch County on the basis that "on going" programs designed to accomplish the same objectives through private practice physicians would produce a higher level of health care. In a subsequent action, the Council approved an OEO health care project on a trial basis under the direction of the Fulton County Medical Society where the geographic limits of the area to be served are well defined.

State House Legislative Report on 16 bills of important concern to MAG was received. This report detailed the outcome on matters relating to: Optometry, podiatry, traffic safety, abortion, Workmen's Compensation, "interning license repealer" Blue Cross-Blue Shield, Title XIX and hospital medical records.

The Hart Bill (S.260), pending in the Senate Judiciary Committee, was discussed by a representative of the ophthalmological society in which he pointed out ophthalmological objections to this federal legislation. Council voted to oppose S.260 and referred the matter to the Legislative Committee for action.

MAG Foundation, tentatively approved at previous Council meetings, was given final approval to be set up in the form received by Council members prior to this meeting.

Title XIX to be implemented by the Department of Family and Children Services was discussed by Board of Health members. Specifically the Board of Health wished Council to rescind its action of September 1965 approving a plan whereby Title XVIII would be administered by the Health Department and Title XIX (extension of Kerr-Mills) would be implemented by the Department of FACS and also to appoint a committee to study the matter of backing the Health Department in its anticipated bid to have the Title XIX program transferred to it. Council took no action with respect to rescinding its previous action of September, 1965 but did refer the entire matter to its standing special Committee on Title XIX for a report at the April Council meeting.

State Drug Vendor Program Committee Report was given and it was pointed out that efforts to have the Department of Family and Children Services adopt an open formulary had not been successful. Council then voted to reaffirm its policy in favor of an open drug formulary and to submit the matter to the MAG House of Delegates for reaffirmation. The Secretary was directed to advise the Department of FACS Director of this action.

Statewide Measles Vaccine Program was discussed and Council approved an earlier action of the Executive Committee calling on all County Medical Societies to cooperate with the Department of Health in its screening and vaccine program in Georgia schools.

EVALUATION AND THE GEORGIA REGIONAL MEDICAL PROGRAM

W. Loren Williams, Jr., Ph.D., *Augusta*
Director of Educational Research
Medical College of Georgia

PUBLIC LAW 89-239, as described in the Guidelines for Regional Medical Programs issued by the U. S. Department of Health, Education, and Welfare, "is intended to assist our medical institutions and professions in capitalizing on the rapid advances of scientific medicine in the professional diagnosis, treatment, and rehabilitation of patients inflicted with heart disease, cancer, stroke, or other related diseases." Equally as laudatory as this goal is the concern for the careful use of tax dollars in goal accomplishment. The form of this concern is somewhat of an innovation in large federally sponsored programs and is best reflected in the emphasis placed on evaluation throughout the material prepared for prospective program developers. The following paragraph is especially pertinent:

> "The grantee should make a special effort to incorporate into all aspects of the planning and operational activities appropriate mechanisms for *evaluating** the effectiveness of *all* aspects of the Regional Medical Program. The concern with the *evaluation* should begin in the planning process so that the planning process may include planning for *evaluation* mechanisms. The exploratory nature of the Regional Medical Programs makes the need for the realistic *evaluation* mechanisms especially important. Particular attention to the *evaluation* process will provide the means for the grantee to assess his progress and accomplishments and will also provide the basis for the preparation of progress reports which can be used by the Division of Regional Medical Programs in *evaluating* the accomplishments of the total national program."

Within this overall concern for evaluation, there are in the Georgia Regional Medical Program three major roles for evaluation activities to play. First, during the planning phase of the program, there will be a variety of individual projects or program elements which will be tried out in varying degree. The effectiveness of these program elements must be evaluated so that fully rational decisions can be made with respect to their inclusion in the later operational phase of the Georgia program. Second, during the planning phase, evaluation procedures must be developed for later use when the operational phase of the program has begun. The necessity to make some preliminary evaluation of program elements during the planning phase will be most helpful in planning for evaluation activities that will follow. Finally, these evaluation techniques must be put to use in the operational phase.

Ultimate Evaluation

The ultimate evaluation activity must be concerned with the overall purpose or goal of the program. Does the program have substantial effect on the health of the region as that health is a function of the incidence of heart disease, cancer, stroke, or related diseases? Clearly, for this level of evaluation, we need to know how Georgia stands now on this health front so that later, after the program has been in operation, we can compare data from the present with data from the future to see how this health picture changes. It should not be forgotten, however, that even though the concern of all regional programs will be focused on heart, cancer, stroke and other related diseases, major cooperative health efforts resulting from this concern, and directed toward it, may have unforeseen benefits in other health areas. Overall evaluation activities, therefore, must be sensitive to changes which could take place in other health areas.

The approach of the Georgia Regional Medical Plan to the accomplishment of its major goal is through several program elements now in the planning stage. These program elements are discussed in detail elsewhere and will only be cited briefly here. They are:

a) Local advisory groups—these groups will be established around each hospital in the State to provide a mechanism for the cooperative generation and

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* *All italics added by present writer.*

sharing of information relevant to the goals of the Regional Medical Program.

b) Existing continuing education activities within the State will be strengthened especially along the lines of heart, stroke, and cancer.

c) New training programs will be developed to expand the size of our health manpower pool.

d) A program of patient demonstrations to communicate new and/or improved patient care procedures will be established.

Each of these program elements has its own subgoals and the extent to which these subgoals are reached must be evaluated. For example, how much more relevant communication will take place after the establishment of the local advisory groups? This is a question for which an answer must be sought. With respect to both the enhanced continuing education programs and the training programs for new health manpower, at least two kinds of questions must be answered. These are: Do students in these programs learn what is expected of them, and having learned what was expected, does this new knowledge or these new skills have any demonstrable effect on the way in which graduates later provide health care? Perhaps, these same kinds of questions should also be asked of the program of patient demonstrations.

Finally, assuming that it can be demonstrated that each of these program elements (and others quite different may well evolve) is successful in attaining its goal, then the question must be asked, How does this contribute to the overall goal of increasing the health of the region to the extent that it is determined by heart, stroke, cancer and other related diseases?

A Variety of Techniques

The evaluation procedures used will rest on a variety of data-gathering techniques. Selected public health and hospital data will be quite important; perhaps some augmentation of current practices in this area will prove to be desirable. Interviews and other data-gathering sessions with physicians and other members of the health care professions will have to be scheduled. A problem of major concern here is the necessity to devise ways of working with individual practitioners in a manner which will elicit their confidence and support and be minimally disturbing to their own professional schedules. Undoubtedly, a number of different kinds of tests of educational achievement will have to be developed if the effects of the continuing education and new health manpower training programs are to be assessed. Finally, just as the success of the entire Regional Medical Program, both here and in other regions, is predicated on the assumption of cooperation among all those engaged in the direct or indirect provision of health care, the success of any effort to evaluate this program in part or in whole is dependent entirely on a recognition of the need for evaluation and willing cooperative assistance to that end.

1967 CALENDAR OF MEETINGS

State

April 10-22—Course in Laryngology and Bronchoesophagology sponsored by the Department of Otolaryngology of the Illinois Eye and Ear Infirmary and the College of Medicine of the University of Illinois, Medical Center, Chicago.

April 13-14—Obstetrics and Gynecology Seminar sponsored by the University of Florida College of Medicine, Gainesville, Fla.

April 20-21—"The Adrenals in Health and Disease," sponsored by the Department of Continuing Education of the Medical College of Georgia, Augusta.

April 30-May 1-2—113th Annual Session of the Medical Association of Georgia, Marriott Motor Hotel, Atlanta.

May 1-5—A Five Day Refresher Course in Pediatrics for Pediatricians and General Practitioners, sponsored by the Children's Hospital of Philadelphia and the Department of Pediatrics, School of Medicine, University of Pennsylvania, Philadelphia, Pa. AAGP accredited for 27 hours.

May 2-3—Postgraduate Conference "Hypertension in Pregnancy," sponsored by Emory University School of Medicine, GYN-OB Dept., Grady Hospital Auditorium, Atlanta.

May 4-7—One Hundredth Texas Medical Association Annual Session, Dallas.

May 8-12—Five Days of Cardiology, "Cardiology Today," sponsored by The Council on Clinical Cardiology, American Heart Assn., and The Dept. of Medicine, Emory University School of Medicine, Grady Hospital Auditorium, Atlanta.

May 15-18—Program of the Fourth Post-Graduate Course, "Fractures and Other Injuries," sponsored by the Committee on Injuries of the American Academy of Orthopaedic Surgeons, Riviera Motor Hotel, Atlanta.

June 11-13—Symposium on Medicine and Religion, "The Physician, the Clergy and the Whole Man," sponsored by the Committee on Medicine and Religion of the Medical Society of the State of North Carolina, the Dept. of Religion of the AMA and the University of North Carolina School of Medicine, School of Medicine, UNC, Chapel Hill, N.C.

August 9-13—Sixth Annual Southwide Lawyers and Physicians Conference, "Is Jesus Christ Relevant in Modern Medicine and Law?," Lake Junaluska, N.C.

National

April 30-May 4—Thirty-second Annual Congress, The North American, Central American and Caribbean Federation of the International College of Surgeons, Americana Hotel, Bal Harbour, Fla.

May 3—American Cancer Society's 1967 Scientific Session, "Current Concepts in Etiology and Diagnosis of Cancer," Sheraton-Dallas Hotel, Dallas, Tex.

June 5-7—A continuation course in "Clinical Electroencephalography," sponsored by the American EEG Society, Philadelphia, Pa.

June 18-22—American Medical Association Annual Convention, Atlantic City, N.J.

(P.L. 89-239)
REMARKS ON REGIONAL MEDICAL PROGRAMS

Charles L. Hudson, M.D., *President*
American Medical Association

I AM PLEASED TO HAVE this opportunity to add my voice and that of the AMA to those who will participate in this meeting discussing Regional Medical Programs. I am sorry that previous commitments will not permit me to stay on with you in the succeeding days, but my interest will remain with you regardless of my absence.

To Counteract Divisiveness

As everyone here knows, scientific advances have tended to divide and stratify our profession, not only in what we do but in our principal interests. As we become more specialized and diversified, it should be recognized that we become more interdependent. To counteract this divisiveness we should set ourselves to the task of formulating plans to assemble dissimilar elements of health service into an integrated whole.

The problem posed in this endeavor is a mode of accomplishment of this task. How shall we do it? We in the medical profession tend to favor the retention of systems "that work" and do best within our resources, to proceed in an evolutionary fashion, perhaps more cautiously than suits the taste of everyone. While we are not "the last to lay the old aside," neither in clinical practice do we tend to be "the first by whom the new are tried."

Government, on the other hand, a financing rather than a service mechanism, with its great resources of money and influence, has the capacity, and I would say inclination, to effect rapid and major changes in patterns and procedures. Between the cautious and the precipitant approaches there is often conflict, even though the objectives of both approaches be the same.

We are present in this conference not to emphasize our differences but to determine as best we can how the resources of government under the law can best be directed toward the health care system that is primarily serviced by the private sector.

The origins of Public Law 89-239 to my knowledge are to be found in the Report of the President's Commission on Heart Disease, Cancer and Stroke, from which document, certain of its recommendations were selected for legislative implementation. As I understand it, it is extremely difficult to reproduce in the language of the law, exactly what a narrative report contains. But it seems reasonable to assume that the sections selected for the Bill retain some relationship to that report from whence they originated. And thus the Senate Bill 596 was interpreted by the profession, as recommending areas of service provision called "complexes" that described not only highly specialized medical and surgical treatments in a medical school center but also diagnostic and treatment stations in the periphery. We inferred that this, a closed entity of indeterminate size, excluding others already practicing in the area, was intended to demonstrate in a disparaging way perhaps, the inadequacies of our physicians. A quantitative capability to replace these physicians or a visible means of improving their capacity to provide health care did not appear feasible under this plan. This we viewed not only as an unwelcome intrusion, but also something extremely confusing to the public as well.

The *raison d' etre* of such complexes we learned was the provision of services to people who were the target of the legislative thrust, based on the allegation that a barrier of ignorance of what was new impeded the flow of health care through current conventional channels.

Believing the premises upon which these actions were based to be false, and concerned that this was a revolutionary change in the system of health care not in the public interest, the AMA did not support the legislation.

A Revised Version

Then, later, several of us from the AMA were on a mission to Washington to advise the Department of Health, Education and Welfare regarding the new P. L. 89-97. Hearing the passage of the legislation on

Presented at the Conference on Regional Medical Programs, January 15, 1967, Washington, D.C.

heart disease, cancer and stroke in the House of Representatives was imminent, we reported to President Johnson our belief that passing this, the Senate version, upon the heels of Medicare would be repugnant to the physicians of the country and would adversely affect their attitude toward any and all federal support programs, especially Medicare.

As a consequence, a revised version of the Senate Bill was prepared with the assistance of the AMA. It passed the House, prevailed in Conference Committee and became the law.

It is the AMA's interpretation of P. L. 89-239 and its regulations, that services will be given incident only to the needs of education and research, that the program, rather than a geographic entity, is a sphere of influence, largely educational intent and capable of exchanging information and personnel between the center and the peripheral institutions which are now called hospitals.

With this understanding—rather than with any definitive interpretation by the National Institutes of Health I must honestly add—I have recommended the program to the constituent and component parts of the AMA in counties and states and they have responded not only as members of local advisory groups, but also by leading in the application for approval of programs.

Our search for another mechanism in this country for postgraduate medical education and the adaptability of P. L. 89-239 as an excellent model for such a purpose, have led me to give public support to the use of this legislation for educational purposes. I feel that the impact of P. L. 89-239 if used in this way, on the health care of the nation will be infinitely greater than if implemented primarily in another fashion. The dissemination of the program's influence through the physician, especially those at the periphery, will be broader than if its substance is used up on services to a limited number of individuals.

To conclude on the note on which I began, I believe the assignment of roles in an integrated system will best be determined by a cooperative effort on the part of all segments of the profession rather than if it were made by legislative edict. It is true that differences in roles will be perpetuated by variations in breadth or depth of education and training, by the complexity of the skills required of us and by the character of the occupations we elect to pursue.

The scarcest and probably the most essential element of the program is the educational and research center, where one might anticipate the most refined knowledge and techniques to be found. Inherent in this recognition is the hazard that judgments of high position in a vertical scale will disparage any other contributor to the whole scheme. Other contributions while less refined perhaps, may be equally valuable. For that reason I hope communication within the program will be open, free, mutually respectful and multidirectional.

EMPHYSEMA SESSION SET FOR APRIL IN ATLANTA

A seminar on emphysema, sponsored by the Georgia Tuberculosis Association, the Georgia Thoracic Society and the Medical College of Georgia, has been scheduled for Atlanta on April 29-30, 1967.

Titled "The Four Masks of Emphysema—A Live Case Conference," the two-day session will carry a fee of $5.00. All sessions will be held in the Woodruff Auditorium of Saint Joseph's Hospital Infirmary, 265 Ivy St., N.E.

This seminar is intended to disseminate practical clinical knowledge regarding the evaluation and treatment of patients with obstructive pulmonary disease. This year the seminar will be devoted entirely to live case demonstration in which the pulmonary—patho-physiology and the actual treatment programs will be discussed in detail by the presentors and a panel of guest speakers.

Guest speakers will include: Hylan A. Bickerman, M.D., F.A.C.P., Associate Clinical Professor of Medicine, College of Physicians and Surgeons, Columbia University, and Director of the Respiratory Physiology Laboratory, Columbia Research Service; Albert Haas, M.D., Associate Professor of Experimental Rehabilitation Medicine and Director, Cardiopulmonary Laboratory, Institute of Rehabilitation Medicine, New York; Mary Skorapa, M.D., Physical Medicine and Rehabilitation, Grady Memorial Hospital, Atlanta, Georgia; and Joseph F. Tomashefski, Director, Cardio-Pulmonary Laboratory, Ohio Tuberculosis Hospital, Associate Professor, Preventive Medicine, Ohio State University College of Medicine, Columbus, Ohio.

All interested physicians, nurses and inhalation therapists are encouraged to attend. Complimentary enrollment will be granted to interns and residents. The registration fee is $5.00, and checks should be made payable to the Georgia Tuberculosis Association, which will also render assistance in securing motel or hotel accommodations. The GTA is located at: *5 Forsyth Street, N.W., Atlanta, Georgia 30303*. Registration cards and all other communications regarding the seminar should be sent to that address.

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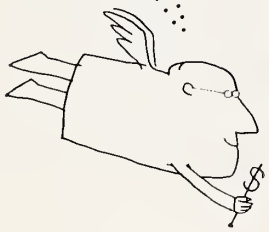

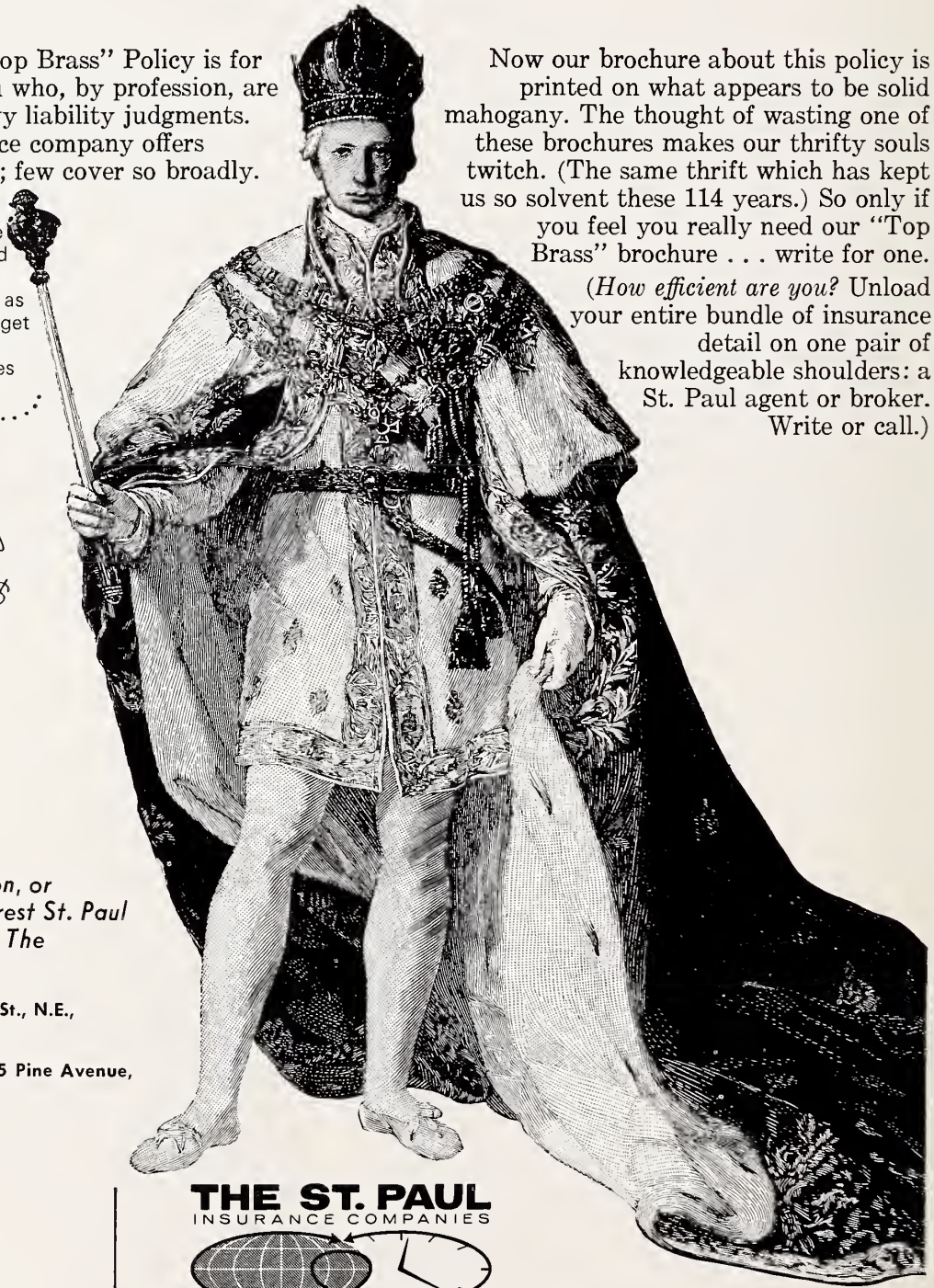

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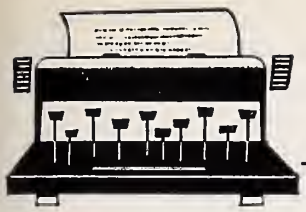

EDITORIALS

A Unique Opportunity for Leadership

THE REGIONAL MEDICAL PROGRAM for Georgia provides the Membership of the Medical Association of Georgia a unique opportunity for leadership in "promoting the science and art of medicine and the betterment of the public health." However, the role of leadership can only be effectively assumed as physicians understand the Program.

To Be Served

The legislation which established this program was the result of the report of the President's Commission on Heart Disease, Cancer, and Stroke, commonly called the DeBakey Report. However, Congress gave thoughtful consideration to many medical leaders and organizations before passing Public Law 89-239 in October, 1965. As a result, this law provides for local medical programs which can and will be developed by people in the areas involved for the people in the areas to be served. This is inherent in the legislation through the language of "co-operative arrangements," and "without interfering with the patterns, or the methods of financing, of patient care of professional practices, or administration of hospitals."

The Regional Medical Program for Georgia has been planned carefully by Georgia people in a truly co-operative atmosphere during the past 15 months. This can best be judged by the membership of the Program's Georgia Advisory Group. The program is practical and will provide the tools for every Practitioner to improve not only his own medical capabilities but also to improve the quality of medical care provided for each and every one of his patients.

This is a challenge for each member of the Medical Association of Georgia and may well be our greatest opportunity in our time for exhibiting responsible leadership.

J. W. Chambers, M.D., LaGrange
Program Coordinator
Georgia Regional Medical Program

Legislative Roundup
1967 Georgia General Assembly

The following report is a brief summary of some of the bills of concern to MAG during the recently adjourned session of the General Assembly.

Optometry: S.B. 9, a bill sponsored by the Georgia Optometric Association, was designed to prohibit agencies of State government from referring recipients of benefits under programs administered by such agencies to an ophthalmologist or to any M.D. for a medical examination of the eye. Under the terms of the bill recipients would have selected their own practitioner—optometrist or ophthalmologist. S.B. 9 was reported "do not pass" from the House State of Republic Committee by a vote of seven to six after passing the Senate. MAG opposed this bill vigorously in the 1967 session and will continue its opposition next year, if necessary.

Podiatry: There were two podiatry bills—H.B. 408, a general bill providing for the forced coverage of podiatric services in all Blue Shield policies; and, H.B. 803, a local bill designed to accomplish the same objective in Fulton County only. Both were defeated on the floor of the House due to lack of a Constitutional majority of 103 votes required for passage. MAG opposed both bills.

Criminal Abortion: H.B. 281, a bill to liberalize Georgia law with respect to abortion passed the House overwhelmingly but got "bottled up" in the Senate Judiciary Committee. This bill provided for a legal abortion when the three following conditions have been met: that the procedure be performed in a hospital or other medical facility; that two consultative opinions be obtained pursuant to an examination given by the two consultants in addition to one required by the physician proposing to do the abortion; and, that written intention of performing the abortion be filed with the hospital or other institution and maintained as a permanent record. This bill will remain a "live bill" and could be acted upon decisively at the 1968 session. MAG supported this bill and will continue its active support.

Interning License Repealer: This bill, H.B. 127, was made necessary through the inadvertent requirement of a bill enacted the previous year to require a license to intern in Georgia. In 1966 a bill to require a year's internship as a condition for licensure was enacted. It unfortunately and (inadvertently) also required a license to serve an internship, which prior to that time had not been in the Georgia law. Another Section of the Georgia Medical Practice Act provided that no one but American citizens could be given a license in Georgia. The effect, therefore, of the 1966 statute would have made necessary the discharge of all non-citizens serving internships in Georgia. Under H.B. 127, which was sponsored by MAG, so much of the '66 statute requiring a license to intern was repealed and the requirement for completion of an internship prior to licensure was retained.

Title XIX Implementation: House Bill 594, to implement the Title XIX (Federal) program was introduced and enacted. H.B. 594, in fact, an amendment to "The Georgia Public Assistance Act of 1965" legislatively established the Department of Family and Children Services as the State agency for the implementation of the Title XIX program. The bill was amended however, to provide that the Department of FACS "enter into reciprocal and cooperative agreements with other agencies of the State which shall include agreements with the Georgia Department of Public Health for medical participation in the health service aspects of planning, and medical supervision of the delivery, and the evaluation of health care services, and with agencies of any other State relative to the providing of assistance or service to residents and non-residents."

Clinical Laboratories: House Bill 755 would require the licensing of all clinical laboratories, blood banks and tissue banks in Georgia. Sponsored at the behest of the Georgia Association of Pathologists with the endorsement of MAG and the State Health Department, H.B. 755 would not require the licensing of laboratories run by physicians as an adjunct to their own practice. This bill was favorably reported from the House Hygiene and Sanitation Committee but never called for a vote on the floor. It will remain as a "live bill" and could be called to the floor for a vote at the 1968 session.

Hospital-Medical Records: A bill, H.B. 107, sponsored by the Georgia Hospital Association enumerating to whom and under what circumstances disclosure of certain hospital records may be made was enacted. As passed by the House the bill was permissive in nature—that is, it did not require the hospital to disclose its records. The bill was amended by the Senate to state that the hospital "shall not withhold" its records. This amendment was accepted by the House.

Pharmacy Code: S.B. 46 to recodify all Georgia laws relating to pharmacy was enacted. The anticipated effort by osteopaths to amend this bill to eliminate the restriction on their prescription rights was never made.

Traffic Safety: A package of four traffic safety bills, endorsed by MAG, was introduced but only one was enacted. The package consisted of: H.B. 137, reflectorized licensed plates; H.B. 138, use of radar by cities; H.B. 139, periodic test for renewal of driver's licenses; and H.B. 140, driver education in Georgia schools. Of these bills, only H.B. 138, use or radar by cities, was enacted.

Workmen's Compensation: House Bill 80, among other things, provided for an increase from $2,500 to $5,000, in the amount that could be payable in medical, hospital and ancillary fees. This bill supported by MAG was killed in Committee. A resolution creating a Study Committee in the field of Workmen's Compensation was enacted.

Blue Cross-Blue Shield: Four bills (H.B. 526, H.B. 527, H.B. 528 & H.B. 529) that would materially affect the operation of the Blue Plans in Georgia by requiring reorganization of the Boards of Directors was introduced but did not get reported from the House Insurance Committee. These will remain as "live bills" during the interim and could be acted upon next year.

Miscellany: There were other bills and resolutions also of concern to MAG, among which were: control of LSD, air pollution, licensed practical nurses, con-

sent for medical treatment, VD education in the public schools and study committee on treatment of the mentally ill.

Composite Summary: During the 1967 session of the General Assembly there were 838 House Bills, 370 House Resolutions, 198 Senate Bills and 127 Senate Resolutions for a grand total of 1,533 legislative items introduced. Of this number approximately 50 were of specific or general interest and concern to the medical profession.

CALLING ALL HEMOPHILIACS

The Georgia Chapter, National Hemophilia Foundation announces the opening and staffing of their state office in the Dempsey-Covington Building, 5th Avenue, #38, Rome, Georgia 30161.

Purposes of the Chapter are:

1. To reach all hemophiliacs; to register them with the State Office; to encourage and assist in treatment and medical care; and to let them know that they can get help.
2. Promotion of research in Hemophilia under regulations of the National Foundation.
3. An intensified education of physicians, parents and sufferers of this disease.

To facilitate these services, a long-range scope of activity has been initiated. Letters to hemotologists, pathologists, pediatricians, and hospital staffs have been issued. It is imperative that all physicians and hospitals register these victims with the Georgia office. It is important to know which hospitals own freezing centrifuges and if the staffs will accept patients which may then be directed to the hospital nearest them. Hospitals not owning centrifuges or adequate equipment can have on hand a simple icebox for plasma storage which in some incidences can be had through the Red Cross Blood Bank in Atlanta. With even so simple a set-up as this arrangement, much unnecessary permanent crippling can be avoided.

The replacement of blood used is urgently needed.

At this time over 200 Hemophiliacs in Georgia have been registered by the state office. The National Foundation estimates approximately 1800 sufferers in the state. This estimation is based on the amount of plasma used annually in treatment of the Hemophiliacs. Educational literature has been sent to all families which are known. But, if possible, there must be a steady effort to broaden the base of contact. New research is being done.

In the last two years, two new products have become available for treatment of Hemophilia. One, the glycine-precipitated Factor VIII, provides a stable, potent source of anti-Hemophilic Factor (AHF) for clinical use. This is still on limited supply.

The second product is Cryoprecipitate which contains AHF in concentrated form. This technique has shown some erratic and unpredictible results and is considered only second best until refinement and results become reproducible.

Mr. William H. Harris, Rome, Georgia, is President of the Georgia Chapter. Dr. Charles M. Huguley, Jr., of Emory University, is Medical Advisor. Members of the Medical Advisory Staff are: Doctors Marguerite Candler; Charles C. Corley; James J. Corrigan; Milton Freedman; Stephen D. Smith; Thomas E. Whitesides—all donating their time to this very worthy work. All correspondence should be directed to *Mrs. Bernard Kauffman, Executive Secretary, Georgia Chapter, National Hemophilia Foundation, 5th Avenue, #38, Rome, Georgia 30161.*

NEW MEMBERS OF THE MEDICAL ASSOCIATION OF GEORGIA

Aguilar, Agustin Active—Spalding	604 S. Eighth Street Griffin, Georgia 30223
Azar, Gordon J. Active—Fulton	3451 Peachtreet Road, N.E. Atlanta, Georgia 30326
Balfour, G. A. Active—Fulton	1365 Clifton Road, N.E. Atlanta, Georgia 30322
Bass, F. Donald Active—Coweta	92 Jackson Street Newnan, Georgia 30263
Calvert, Wilson C. Active—Meriwether-Harris	Warm Springs Foundation Warm Springs, Georgia 31830
Craig, Harris V. Active—Fulton	340 Boulevard, N.E. Atlanta, Georgia 30312
Davison, Alexis H. Active—Fulton	478 Peachtree Street, N.E. Atlanta, Georgia 30308
Dixon, Hamilton S. Active—Floyd	14 Hospital Circle Rome, Georgia 30161
Ehik, Julius, Active—Fulton	811 Juniper Street, N.E. Atlanta, Georgia 30308
Ewing, Marlin B. Active—Fulton	80 Butler Street, S.E. Atlanta, Georgia 30303
Hall, Henry L. Active—Fulton	Emory University Atlanta, Georgia 30322
Hicks, Raymond G. Active—Fulton	35 Butler Street, S.E. Atlanta, Georgia 30303
Jarrell, Robert J. Active—Coweta	10 Evergreen Drive Newnan, Georgia 30263
Peacocke, Ivan L. Active—Fulton	Emory University Atlanta, Georgia 30322
Pulliam, Morris M. Active—Newton-Rockdale	310 N. Mill Covington, Georgia 30209
Rascoe, E. Marston Active—Fulton	3400 Peachtree Street, N.E. Atlanta, Georgia 30324
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Contraindications: Patients with tumors which estrogen might stimulate.
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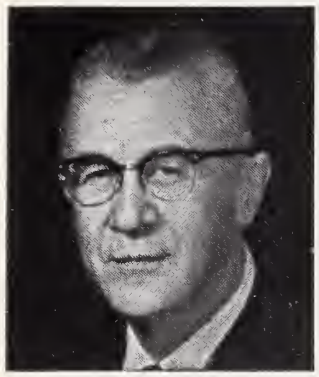
Dosage and Administration: Determine minimum effective dose and maintain only as long as necessary.

Menopausal Syndrome: One or two tablets (0.02 or 0.04 mg.) daily. Omit therapy one week each month. Repeat cyclic therapy until satisfactory response is obtained. Advise patient that vaginal bleeding may occur.

Female Hypogonadism: Two tablets (0.04 mg.) one to three times daily for two weeks followed by progesterone for two weeks. Continue cyclic therapy for 3-6 months; then withdraw therapy to determine if normal cycle will be instituted. Additional cyclic therapy may be required in some patients.

WILLIAM H. RORER, INC. Fort Washington, Pa.

RORER



PRESIDENT'S LETTER

A FRUITFUL AND SATISFYING TIME

In many ways this will be the occasion for regrets, in others a feeling that is timely and appropriate to pass along to my able and worthy successor in office as your President, the duties and responsibilities which the year has presented in sequence from May, 1966 until today.

To me it has been the most fruitful and satisfying time, enriched both by experience and association, since my advent on the scene of organized medicine 37 years ago.

Two Full Cycles

Space and time will here prevent my inclination to indulge in reminiscences and observations over this period of occurrences and situations, many of which would be of interest to me only; many others to my colleagues older and younger. Certainly we have lived in and practiced in two complete full cycles of our profession. Since 1930 there has been and still is a gradual but steady unfolding of advances, gaining of knowledge, development of—at that time not even considered or deemed to be possible—mechanical, technical, research and instructional methods which, while today are not unusual, would have then been considered as beyond the scope of professional attainment, certainly in our life time.

Our therapeutic adjuncts, laboratory, x-ray, operative equipment and procedures completely made obsolete and outdated everything which we had at hand to use in our efforts to be of help and assistance to those ill and injured in our earlier days.

Having also lived in an even earlier generation as son and grandson and great-grandson of country doctors, this medical metamorphosis to me is even the more constantly amazing, almost at times to the point of being unbelievable.

How can we possibly project our thinking to two generations in the future? What will our professional attainments, accomplishments and therapeutic advances present and will the picture be as foreign and different from today, as we have seen from today and 40 years ago? The possibilities are intriguing even to contemplate.

My sincere and grateful thanks to you, who have seen fit to honor me as your President. It has been the high point in my life. What errors I have made have been of judgment and not of intent. I have not knowingly or wilfully caused offense to any member and have made every effort to aid in solving problems and settling differences among us when I have had occasion to do so. Without the able and willing assistance of our Officers, Executive Committee and Council, and Headquarters Office Staff the year could have been at times trying. As it is, it has been a pleasant and happy one. One which I shall always remember with pleasure and appreciation.

Walter Brown

Walter E. Brown, M.D.
President, Medical Association of Georgia

LYMPHOMA—EVERY PHYSICIAN'S PROBLEM

James F. Kirkpatrick, Jr., M.D., *Tifton*

Interest in lymphoma is currently increasing, with provocative reports appearing in the literature almost monthly. The etiology, of course, remains unknown, but, beginning with Burkitt's report of a lymphoma syndrome dependent on environment in Africa, we have seen a stream of articles hinting at the possibility of a viral agent and a vector of some sort. In fact when Banfield et al produced findings of actual transmission of Reticulum Cell Sarcoma of hamsters by mosquitoes, one is almost ready to infer that this is indeed the situation.

Reinforce these with Epstein's finding of virus particles in cultured lymphoblasts of Burkitt's Lymphoma, or the fact that man-biting mosquitoes readily feed on African Clawed Frogs, who are known to have spontaneous lymphomas, and inhabit the same section of Africa, and even the most skeptical will sit up and take notice.

Until the Vaccine

Why worry about it until the "vaccine" is here? Because it's not here—and because our crude, but faithful, old standbys, surgery, radiation and chemotherapy are doing fairly well in the early cases. A 60% five-year survival is a good round figure for the Stage I patients. Forget the details of classification and therapy for now—they can be referred to in one minute in any current periodical. Instead, let's all cultivate a high index of suspicion.

Though the average age at onset is 47, all ages are vulnerable. No ethnic group, nationality, race, or economic strata is either predisposed or immune to its ravages. Any organ or system can be involved initially. Unfortunately, 50% of patients present with painless lymphadenopathy in the cervical, axilliary or inguinal regions, and hepatosplenomegaly is the next most common clue. However, there may be some earlier clues for specific regions.

Ophthalmologist, take special note of that flesh-colored conjunctional lesion. It may be nodular, coarsely granular or diffuse.

Dermatologists—those circumscribed, violaceous lesions of the scalp that look vaguely familiar? Think of lymphoma.

ENT Men—most of you will suspect one enlarged tonsil, but don't forget to have both sides of the neck irradiated.

Internists and G.P.'s should remember that a chronically ill patient with an abnormal EKG rhythm, unresponsive to digitalis or quinidine, may have lymphoma involving the pericardium or myocardium. It is always a possible cause of pleural effusions, especially the chylous ones. Transudates in the thorax usually come from mediastinal involvement. Exudates are more likely to come from actual pleural infiltrates. Chylous effusions may imply obstruction or damage to the thoracic duct system.

Gastroenterologists and surgeons should be particularly alert since 16% of lymphoma patients present with an intra-abdominal focus. This may be manifested by bleeding, obstruction, jaundice, perforation, intussusception, hematemesis, portal hypertension or Sprue. An astute diagnosis of Menetrier's disease may have to be changed in a few weeks (with chagrin) to lymphoma. The "obvious" carcinoma of the stomach, but with acid present, strongly suggests lymphoma. In children intussusception is a common presenting sign. Paradoxically, adults obstruct late because of longitudinal spread along the submucosal layer.

On G.I. x-rays, suspect thickening of folds, dilations of intestine and polypoid masses whether single or multiple. Bone films may show an osteolytic (rarely osteoblastic) skeletal lesion. One in eight lymphoma patients will have skeletal involvement eventually.

Neurosurgery is not exempt either. Immediate laminectomy and post irradiation for paraplegia due to lymphoma will give 70% to 75% relief of paralysis.

In the light of recent advances, perhaps it is time to stop academically avoiding any reference to etio-

logic possibilities in our histories. If your next lymphoma patient lives near a swamp or garbage dump—say so!! There may be a lymphomatous frog near by.

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2. Banfield, W. G. et al: Mosquito transmission of a reticulum cell sarcoma of hamsters; *Science* 148:1239-40, 1965.

3. Epstein, M. A., Quintin, W. E., and Gray, J. E.: Virus particles in cultured lymphoblasts from Burkitts' lymphoma: *Lancet* 1:702-703, 1964.

Box 342

Approved by the Professional Education Committee, Georgia Division, ACS.

ORTHOPAEDIC SURGEONS TO HOLD FOURTH ANNUAL POSTGRADUATE COURSE IN ATLANTA

The fourth annual postgraduate course on the treatment of fractures and other injuries sponsored in Atlanta, Georgia, by the American Academy of Orthopaedic Surgeons will be held May, 15, 16, 17, 18, 1967, at the Riviera Motel, 1630 Peachtree Street, N.E.

The four-day course of lectures, audio-visual demonstrations, and panel discussions is to be conducted by the Academy's Committee on Injuries. It is concerned primarily with injuries of the musculoskeletal system, as well as in the areas of chest, abdominal, plastic, and general surgery and neurosurgery.

The course in Atlanta last year attracted 257 registrants from Georgia and 33 other states.

Director of the comprehensive symposium for orthopaedic surgeons, general surgeons, general physicians, residents, and interns is Dr. Wood W. Lovell, Chief, Department of Orthopaedic Surgery, Georgia Baptist Hospital, Atlanta, and Scottish Rite Hospital for Crippled Children, Decatur. The Faculty is composed of 32 orthopaedic surgeons, 18 from Georgia, and 14 from other states. In addition to orthopaedists, they include Dr. Robert F. Mabon, Clinical Assistant Professor of Neurosurgery, Dr. J. D. Martin, Jr., Chairman, Department of Surgery, and Dr. William A. Hopkins, Associate in Thoracic Surgery, all of Emory University School of Medicine, Atlanta.

The Atlanta course is one of a series of postgraduate courses on treatment of injuries being conducted in major cities by the Academy's Committee on Injuries, whose Chairman is Dr. Walter A. Hoyt, Jr., Director, Orthopaedic Surgery, City Hospital and Children's Hospital, Akron, Ohio. Similar courses this year are to be given in Miami, Cleveland, and Dallas.

SEX EDUCATION EXPERT TO BE FEATURED SPEAKER AT AUXILIARY CONVENTION

Mary Calderone, M.D., noted proponent of sex education, will be one of the speakers at the 44th Annual Convention of the Woman's Auxiliary to the AMA. June 18-22, in Atlantic City. Convention headquarters will be the Shelburne Hotel.

Dr. Calderone's talk, "Sex Education: Goals and Means," is scheduled for Tuesday morning, June 20, according to Mrs. Asher Yaguda, Newark, New Jersey, Auxiliary president.

Also speaking on Tuesday will be Charles L. Hudson, M.D., AMA president. Dr. Hudson's talk will be made at the luncheon honoring Auxiliary past presidents and AMA officers and trustees. The Auxiliary's contribution to AMA-ERF will be presented at that time, as well as awards to county and state AMA-ERF winners.

Mrs. Yaguda and Mrs. Karl F. Ritter, Lima, Ohio, president-elect, will be honored at a reception Sunday, June 18. Mrs. Ritter will be installed as president Wednesday, June 21.

Other convention highlights will be "The Little Workshop," a question-and-answer session on Auxiliary programs, and reports on community service, international health activities, health careers, legislation, mental and rural health and safety-disaster preparedness projects. State auxiliary presidents will discuss outstanding local programs at the Monday and Tuesday sessions.

The Auxiliary will also sponsor a teen-age program for children of physicians and guests attending the AMA convention, held concurrently with the Auxiliary meeting. A Sunday afternoon mixer and pool party are among the events planned.

ILLINOIS PROFESSOR TO DELIVER HONORARY LECTURE

Dr. Marvin Cornblath, Professor of Pediatrics, College of Medicine, University of Illinois, Chicago, Illinois, will deliver the first Joseph Yampolsky Honorary Lecture on May 16, 1967, at 8:00 p.m. in the Auditorium of the Education Building at Georgia Baptist Hospital. Title of his lecture will be "The Changing Care of the Premature Infant." All interested physicians are invited.

PREVENTION OF VALVULAR LESIONS

J. Gordon Barrow, M.D., *Atlanta*

THE PREVENTION OF VALVULAR HEART DISEASE today is largely a matter of the control of rheumatic fever. The continued recurrence of this disease in spite of its proven association with group A hemolytic streptococcal infections and our theoretical ability to control these infections has caused a reassessment of our methods of control.

Primary Prophylaxis

There are several reasons why control of streptococcal infections in the population has not been a practical approach to the problem: (1) Only about 3% to 5% of the population seems to be susceptible to rheumatic fever following a streptococcal infection. (2) About 20% of the population has a positive throat culture for group A strep at any one time so that culturing the population has not served to identify susceptibles, and (3) Doctors cannot clinically differentiate sore throats from streptococcal infection from those due to other causes.

Principles to Follow

There are certain principles that, if followed by all physicians, would improve primary prevention of rheumatic fever. (1) All clinical pharyngitis should be cultured—preferably using a fluorescent antibody technic, and all infections proven due to group A strep should be treated with ten days of penicillin therapy (or 600,000 U benzathine penicillin I.M.). (2) All infections clinically known to be likely streptococcal such as erysipelas, scarlet fever, otitis media (etc.) should be treated with ten days of penicillin therapy even if not cultured, and (3) All persons in closed population such as army stations and boarding schools should be given daily prophylaxis for one month with small doses of sulfadiazine or penicillin if a streptococcal epidemic is identified in the population.

The use of long term daily preventive measures in persons known to be susceptible to rheumatic fever or chorea is known as secondary prevention. Sulfadiazine in doses of 1 gm. daily has been found to be equally effective with oral penicillin. Intramuscular benzathine penicillin is more effective (99% compared to 94% for both oral preparations); however, it has the disadvantage of being painful, and therefore fewer patients will continue on it faithfully over a long period of time. Fatal anaphylaxis has also been rarely reported. The Georgia Heart Association Rheumatic Fever Committee recommends sulfadiazine 1 gm. daily as the drug of choice.

Duration of Medication

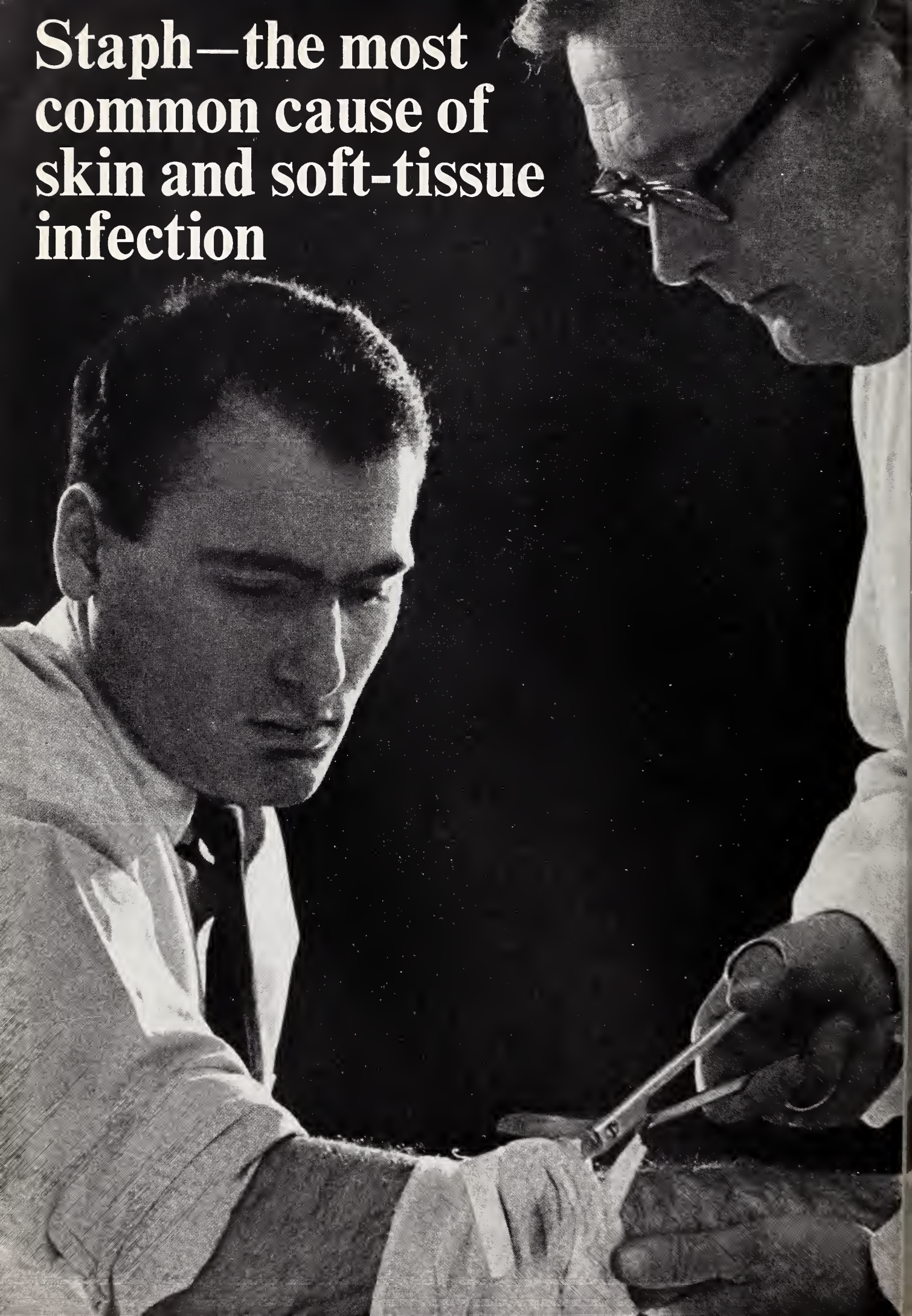
Susceptible individuals should remain on this drug continuously for at least five years after their last acute attack or until they are 21 years of age, whichever is longer. Individuals who already have permanent valvular damage should remain on prophylaxis for life.

It should be pointed out that this is not satisfactory prophylaxis against subacute bacterial endocarditis in those with valvular disease or congenital heart defects. In both these classes of patients full dose of penicillin should be given before and after tooth extraction (or cleaning of teeth), surgical procedure, or maternal delivery.

Prepared at the request of the Committee on Professional Education of the Georgia Heart Association.

Dr. Barrow is Director of Medical Education, Georgia Baptist Hospital, and Clinical Professor of Medicine, Emory University School of Medicine, Atlanta, Georgia.

Staph—the most common cause of skin and soft-tissue infection



reliably controlled with specific therapy

A suitable dosage form for every staph situation

Staph—the most common cause of skin and soft-tissue infection—also is responsible for many more serious infections, such as pneumonia, osteomyelitis, and septicemia. Often, a seemingly minor skin infection is the source of metastatic spread to deeper structures. When findings on culture incriminate staph as the cause, Prostaphlin (sodium oxacillin) will provide specific effective therapy.

Bactericidal effectiveness. Hardly a staph organism can resist the bactericidal action of Prostaphlin (sodium oxacillin), as shown by a 34-month *in vitro* study. Of all staph isolates tested, 99.5% were sensitive to oxacillin.[1]

Clinically proven. There is a high correlation between these *in vitro* findings and clinical results. Of 610 patients treated with Prostaphlin (sodium oxacillin), 89.8% were reported cured or improved, including those with staph infections resistant to penicillin G.[2] And since resistance does not appear to develop *in vivo,* therapy with oxacillin can be extended when necessary.

Outstanding safety record. Besides being staph-specific and rapidly absorbed—Prostaphlin (sodium oxacillin) has established an outstanding record of safety during five years of widespread clinical use. Continuous high blood levels of oxacillin have not produced toxic effects on kidney function, assuring a significant margin of safety. However, as with all penicillins, the possibility of allergic response should be considered.

Capsules, Oral Solution and Injectable. Prostaphlin (sodium oxacillin) is available in three flexible dosage forms to suit the age of the patient and severity of infection—capsules, an oral solution for pediatric use, and multi-dose vials for injection, I.M. or I.V.

PRESCRIBING INFORMATION: For complete information, consult Official Package Circular. *Indications:* Infections caused by Staphylococci, particularly those due to penicillin G-resistant Staphylococci. *Contraindications:* A history of severe allergic reactions to penicillin. *Precautions:* Typical penicillin-allergic reactions may occur. Safety for use in pregnancy and premature infants is not established. Because of limited experience, use cautiously and evaluate organ system function frequently in neonates. Mycotic or bacterial superinfections may occur. Assess renal, hematopoietic and hepatic function intermittently during long-term therapy. *Adverse Reactions:* Skin rashes, pruritus, urticaria, eosinophilia, nausea, vomiting, diarrhea, fever and occasional anaphylaxis. Rare cases of reversible hepatocellular dysfunction have occurred. Moderate SGOT elevations have been noted. Thrombophlebitis has occurred occasionally during intravenous therapy and leukopenia was noted in two cases. *Usual Oral Dosage:* Adults: 500 mg. *q.4* or *q.6h.* Children: 50 mg./Kg./day. *Usual Parenteral Dosage:* Adults: 250-500 mg. *q.4* or *q.6h.* Children: 50 mg./Kg./day. Treat beta-hemolytic streptococcal infections for at least 10 days. Give oral drug 1 to 2 hours before meals. *Supplied:* Capsules—250 and 500 mg. in bottles of 48. Injectable—250 mg., 500 mg., and 1 Gm. dry filled vial for I.M./I.V. use. For Oral Solution—100 ml. bottle, 250 mg./5 ml. when reconstituted. **A.H.F.S. CATEGORY: 8:12.6**

References: 1. Abstracted from *Antibiotic Sensitivity of Staphylococci Studied from November 1962 through August 1965,* reported by Griffith, L.J., Staphylococcus Reference Laboratory, V.A. Hospital, Batavia, N.Y. 2. Data on file, Bristol Laboratories.

BRISTOL

BRISTOL LABORATORIES/Division of Bristol-Myers Co., Syracuse, N.Y.

Whenever you suspect staph PROSTAPHLIN®

SODIUM OXACILLIN

LEGAL PAGE

BE CAREFUL NOT TO GUARANTEE RESULTS

John L. Moore, Jr., *Atlanta*

A November, 1966, decision of the Appellate Court of Illinois raises an extremely important point.

In that case a married couple had had two children, both of whom were mentally retarded. The husband and wife contacted a physician and made known to him that the wife wanted to be free from further childbearing. The wife stated that the physician entered an oral contract with her whereby he agreed to operate on and sterilize her husband. She stated that the physician assured and warranted to her that the operation would render her husband incapable of procreation as a result of her sexual relations with him.

After the operation the husband and wife relied on the assurances and warranties of the physician, resumed sexual relations, and had another child. The child was born both retarded and physically deformed.

The wife then sued the physician to recover medical expenses and expenses for other special care and attention necessary for the child born. The suit was filed more than two and less than five years after the performance of the operation.

Lower Court Decision

The lower court decided that the two year statute of limitations applicable to suit for physical injury applied and dismissed the case. The wife appealed and the Court of Appeals of Illinois reversed the lower court, saying that the action was subject to the five year statute of limitations for contract actions.

The opinion of the court is extremely carefully and well written. It states law which would undoubtedly apply in Georgia. If the husband had sued the physician for malpractice, the shorter statute of limitations would have applied. However, the wife herself had not been treated by the physician and her only cause of action against the physician was based on the alleged oral agreement and warranty. For this reason the gist of the cause of action lay in contract rather than in tort for malpractice.

The issue of whether the doctor actually made oral representations and warranties to the wife has not yet been tried, the decision discussed only relating to preliminary technical issues.

Comment

The Legal Page of the October, 1966, issue of this *Journal* carried suggested forms under the Georgia Voluntary Sterilization Act. The forms are signed by both husband and wife when either one is to have a sterilization operation. The forms recite clearly that the result of sterility has not been guaranteed. If the physician performing the procedure in the discussed case had used such a form there could be very little force to the wife's lawsuit.

It is important to realize that spouses have a definite interest in almost any medical surgical procedure performed on the mate. Physicians should be extremely careful not to guarantee a result either to the patient or to the patient's spouse. It is also suggested that it would be sensible to incorporate as a part of the written consent to surgery signed by the patient and the spouse, if the physician had any conversations with the spouse, a disclaimer of any guaranteed result. Otherwise, the patient's spouse may later claim an oral agreement. This does not necessarily indicate that the patient's spouse is dishonest. The hope for successful treatment shared by the patient and the patient's spouse is often encouraged by comforting words used by the physician genuinely concerned for the worry of the patient and the patient's spouse. While no physician will want to be so correct about such matters that he unduly upsets the patient and the patient's spouse before treatment or surgery, yet it seems wise to consider the exposure a physician may have if he does not incorporate a satisfactory negation of any guaranteed result.*

** The case discussed is Doerr v. Villate, 74 Ill. App.2d 332, 220 N.E.2d 767 (App.Ct.Ill.1966).*

Suite 1220
C & S Bank Building

Prepared at the request of The Medical Association of Georgia. Mr. Moore is a member of the firm of Alston, Miller & Gaines, General Counsel to The Medical Association of Georgia.

BEHAVIORAL THERAPY*

Stewart L. Wiggins, Ph.D., *Augusta*

During the past several years we have witnessed the development of the so-called "behavioral therapies" which lay claim to remarkable rates of improvement in dealing with neuroses and psychoses in relatively short periods of time. Follow-up studies bear out the claims of the behavior therapists. What then is this method of treatment and how does it produce these results?

Learning and Conditioning

The major assumption regarding neurotic disorders for behavior therapy is that these conditions such as phobias, obsessions, anxieties, hysterical reactions, and the like are *learned* by the individual during the course of his life experiences. Secondly, if disorders such as the above are learned, then various principles of learning are in operation with the disorder and these same principles and others can be successfully employed in "unlearning" them. As Eysenck has stated in a recent article, "There is general agreement that neurotic behavior is learned and that it is intimately concerned with and triggered by strong emotional arousal, and that disorders of this kind seem to involve the attachment of emotions to inappropriate stimuli and of behavioral reactions to the inappropriate emotions." This suggests, of course, that we are dealing with *conditioning* of the organism and conditioned emotional reactions, and the works of Pavlov, Sechenov, and Watson are relevant to an understanding of the etiology and evolution of neurotic disorders, and possibly even psychotic disorders as many writers insist. Along these lines, this system depends heavily upon the interdependence of perceptual and autonomic events in understanding, as well as treating, these kinds of disorders.

Reciprocal Inhibition

Eysenck has pointed out the significance of Watson's early work with Albert in conditioning fear responses (or developing a full blown phobia) to stimuli which prior to experimentation did not evoke fear responses, and later work by Jones represented an early experimental application of "reciprocal inhibition" to "unlearn" or extinguish this type of conditioned fear response. In both of these studies *generalization* was noted to similar kinds of stimuli.

Reciprocal inhibition is intricately involved in Wolpe's system as well as other behavior therapists. In essence it is introducing a pleasant or positive emotional stimulus situation in the presence of an undesirable or negative emotional response with the hope that the former will extinguish or "win-out" over the latter. With this goal in mind it is easy to see why hypnosis is often used by behavioral therapists in conjunction with other kinds of therapies since the predominant effects of hypnosis are to produce relaxation and comfort. This affords an excellent stimulus situation to pair with anxieties, phobias, and other neurotic disorders, and often produces a decrement in undesirable physiological reactivity.

Medical College of Georgia

* *First of two parts.*

Prepared at the request of the Sub-committee on Mental Health of the Medical Association of Georgia.

"THE MEDICAL UNITS 'PLANNING GUIDE'" AND "THE BUSINESS SIDE OF MEDICAL PRACTICE" AVAILABLE TO GEORGIA DOCTORS

For the fourth consecutive year, the Medical Association of Georgia is offering to the doctors of Georgia the American Medical Association-Sears, Roebuck Foundation, Inc. booklets entitled, "The Business Side of Medical Practice," and "The Medical Units 'Planning Guide.'" The material is free of charge and either or both may be obtained by writing to the *MAG Headquarters Office, 938 Peachtree St., N.E., Atlanta, Ga. 30309.*

Each booklet, constructed of heavy vellum stock, measures approximately 12″ × 9″ and contains charts, graphs, illustrations, floor plans, etc. Both are made for easy handling and make a nice addition to a doctor's office library.

with the State Department of Education, The Georgia Heart Association, The Georgia Tuberculosis Association, The Georgia Cancer Society, and the State Health Department are available to all schools throughout the state.

Appropriate pre-test and post-test questionnaires are currently being evaluated.

The Committee feels this is a very worthwhile project and hopes to continue in strength and efforts in this field.

B. The Medical Association of Georgia through the Committee on the Medical Aspects of Sports of the School Child Health Committee gained response to postgraduate course on the Medical Aspects of Sports. Bruce Brewer, Orthopaedic Surgeon from Milwaukee, Wisconsin, formerly the Orthopaedic Consultant for the Milwaukee Braves was one of the guest lecturers, also Dr. William Buttram, Internist from Chattanooga, Tennessee gave a very fine presentation on Heat Stress and Athletes.

II. *Future Projects.*

A. The Medical Aspect of Sports Conference will be held this year, Thursday, August 3, 1967 in Savannah, Georgia. The site of the meeting away from Atlanta has been necessitated because of the alteration of the site of the Coaching Clinic and the All-Star High School Football Game. Since these events are being held in Savannah and since the Committee on The Medical Aspect of Sports has not sponsored a meeting in Savannah, it was felt this should be the site for this year's meeting. Again, as in the past, out of state, as well as in state speakers will present topics of interest to coaches and physicians as well as others who are engaged in the treatment of athletes.

B. The Committee has recommended to the Georgia High School Association that a standard minimum fee of $15.00 be offered to physicians who attend a high school football game in an official capacity. The Committee felt that such a recommendation was not intended in any way to alter any other agreement that may now exist between any of the schools and physicians who regularly attend such games. This simply is intended as a guideline in case services of a physician for a game are needed so that some basis is available.

C. Classification of students for physical education. The Committee at the present time is investigating several different forms: (1) Recommendations of Committee On Exercise and Physical Fitness of the American Medical Association; (2) Form used by the California Public Schools; (3) Form used by the Kennesaw Junior College; (4) Form used by El Paso, Texas Public Schools; and (5) the form used by the Florida State Department of Education. It is hoped that in the near future, a form which can be utilized in all the schools throughout the State of Georgia will be available to physicians so that students might be classified for physical education listing any limitations which they might have and outlining briefly those activities which would not be harmful.

III. *Standard Physical Examination for Participants of Athletic Teams.*

The Committee at the present time has under study the recommendations made in the AMA Guide for Medical Evaluation of Candidates for School Sports and also disqualifying conditions for contact sports as outlined by the Colorado Medical Society and the Nebraska State Medical Society as well as the history and physical examination form currently in use by the Virginia High School League. It is hoped that in the near future such a form will be made available to all participants of athletic teams in schools throughout the state.

IV. *Hazardous and Unfavorable Exercises.*

The Committee has requested that the Medical Association of Georgia recommend to all schools, coaches, city and county recreation directors that deep knee bends and duck waddling be eliminated from the exercise program. The rationale behind this being that damage can be caused in the knee joint by these exercises.

V. The Committee plans to submit an article on Heat Disorders in Athletics for publication in the *Medical Association of Georgia Journal* in July so that it would immediately preceed the onset of the football season.

VI. Guidelines for pre-adolescent participation in sports are currently being prepared by the Committee and we hope that very soon these guidelines will be available throughout the State.

VII. *Immunization.*

The State Health Department in Cooperation with the School Child Health Committee plans to send out immunization schedules to all physicians throughout the state bringing them up to date on changes which have recently taken place including recommendations regarding measles immunization.

VIII. *Playground Equipment.*

The Committee recommends that school recreation departments, etc. should concentrate on the purchase of functional items of playground equipment such as "obstacle course" playground equipment rather than the conventional playground equipment. It was expressed that the money spent on non-functional items for the most part was wasted whereas the obstacle course type equipment can be utilized in the physical education curriculum as well as for leisure activities.

IX. *School Lunch Program.*

The Committee has recommended to the Medical Association of Georgia that it go on record in support of finding ways and means by which the school lunch program be continued because

of the beneficial effects to health which can be derived from nutritious lunches.

X. The Committee continues to have very strong feeling that health education in the school needs the support of all the physicians throughout the state and is making every effort possible to see to it that health education within the schools of Georgia is upgraded and that necessary curriculum changes will be made as time goes on.

XI. *Georgia Interagency Council On School Child Health.*

The Georgia Interagency Council on School Child Health has been formed and the School Child Health Committee of the Medical Association of Georgia has been asked to send one representative of the School Child Health Committee to this Interagency Council. It is the feeling of the Committee this should be supported as there has been a need for such an agency for a considerable period of time without this great State.

REFERENCE COMMITTEE RECOMMENDATION—Your Reference Committee commends the School Child Health Committee for an excellent job during the year and recommends approval of the report. Your Reference Committee would, however, like to recommend that any fees paid to attending physicians at athletic contests be based on a usual and customary basis with the minimum fee being no less than that paid to game officials.

HOUSE OF DELEGATES ACTION—Adopted the report of the School Child Health Committee with the additional recommendation made by the Reference Committee. Speaker Walker then recognized Luther Vinton, Decatur, who inquired as to whether or not this action prohibited a physician from giving his services on a voluntary basis at no charge. By general agreement, Speaker Walker ruled that such action in no way prohibited a physician from rendering service at no charge.

Hospital Activities

CHARLES T. COWART, M.D., *Chairman*

The members of the Hospital Activities Committee are: Charles T. Cowart, LaGrange, Alex P. Jones, Griffin, Rupert H. Bramblett, Cumming, Hamil Murray, Gainesville, Lawrence Lee, Jr., Savannah, and Napier Burson, Jr., Atlanta.

To date, the committee has held two meetings. These were devoted to developing the purpose and duties of the committee. These were presented at the December, 1966 meeting of the Council of the Medical Association of Georgia and were approved. The committee plans to publish a brochure of the services offered by this committee. This brochure is to be mailed to the administrators and chiefs of medical staffs of all hospitals in the state. Another meeting of the committee is planned before the Annual Session of the Medical Association of Georgia.

There has been some activity by the committee in relation to the Department of Public Health Regulations for Hospitals and for Nursing Homes. Information was received too late to do much about the regulations for hospitals. The Association was represented at the public hearing on regulations for nursing homes, and the chairman of this committee attended the meeting of the committee of the Board of Health which considered the regulations and made subsequent recommendations to the full Board of Health. It has been noted by the Hospital Activites Committee as well as by the Georgia Hospital Association that the section on nursing service cannot be complied with by any hospital in the state. It also places every hospital in a very vulnerable legal position. The committee plans to work with the Georgia Hospital Association to influence the Board of Health and the Department of Health to modify this section so that it can be complied with.

DUTIES OF MAG HOSPITAL ACTIVITIES COMMITTEE

The Hospital Activities Committee of the Medical Association of Georgia is charged with any and all duties related to giving aid and assistance to the hospitals of Georgia, to their administration, governing bodies, medical staffs, and related activites and interested parties.

These services may include: (1) Education; (2) Arbitration; (3) Consultation; (4) Coordination; and (5) Recommendation.

Many of these functions will tend to overlap.

(1) *Education:* Gather any pertinent information relative to patient care, administration, governmental programs and agencies, disaster and safety, etc., and mail through MAG to all who have an interest.

(2) *Arbitration:* Make arbitration services available when requested by MAG in those cases where such service is not available from existing agencies, councils, or committees, and such arbitration to be carried out as outlined below.

(3) *Consultation:* Whenever requests are made to MAG by hospital administrators, governing boards, or medical staffs, make available specialists in the field of inquiry. There must always be ready consultation with any officer of MAG, the Council of MAG, and any and all other committees of MAG.

(4) *Coordination:* Coordination of the functions and activities of the various MAG committees as they relate to hospitals in Georgia or in other states.

(5) *Recommendations:* Study the relations of administration, governing boards, and medical staffs, especially in the smaller hospitals, including study of the Bylaws and Rules and Regulations, and make recommendations wherever pertainent through MAG. Keep informed of distribution of hospitals, hospital beds, physicians, specialized services and area needs, and make recommendations to the appropriate body as indicated. Keep informed about all existing and future governmental and agency programs affecting hospitals and patient care, and make recommendations to all interested parties. Offer its services through MAG in those cases where problems develop between federal or state governmental agencies and hospitals, administrators, and/or medical staffs.

Until such time as another committee takes cognizance of nursing homes, the same services will be offered to them by the Hospital Activities Committee through MAG as are offered to hospitals.

REFERENCE COMMITTEE RECOMMENDATION—Your Reference Commmittee takes cognizance of the many activities of this Committee during the year and recommends approval of the report.

HOUSE OF DELEGATES ACTION—Adopted the report of the Hospital Activities Committee as recommended by the Reference Committee.

Paramedical Study

JOHN T. GODWIN, M.D., *Chairman*

The Paramedical Study Committee has made the following recommendations to the Council for implementation in order to improve the recruitment of students in the various Paramedical fields.

1. Establishment of a committee in each District under the direction of the Councilor which will include the Woman's Auxiliary, Health Career Clubs, hospital administrators and other groups interested in Paramedical recruitment.

Mr. Wallace will oversee the progress and maintain surveillance of the program.

2. Scholarship prizes for the first, second, and third districts who are most successful in their recruitment efforts.
3. Provide a center for audio-visual and recruitment information under Mr. Wallace in the Medical Association of Georgia office.
4. Purchase additional films.
5. Utilize the Fulton County and State TV educational system for showing films and other programs.
6. Cooperate with the Georgia Hospital Association and other organizations to recruit Paramedical personnel.
7. Promote utilization of the Georgia Scholarship Commission Funds.
8. Indicate to the Governor and Chancellor of the University System the importance of establishing Paramedical Training programs at Georgia State College and utilization of available grant funds.

Some of these recommendations have been implemented. The recruitment films have been obtained and are now available. The committees are in the process of being formed and other areas are being investigated for implementation.

REFERENCE COMMITTEE RECOMMENDATION—The Committee acknowledges this excellent report and recommends approval. The Committee, would, however, like to recommend that any unit of the University System of Georgia, as well as any other institution of higher learning, promote such paramedical programs in addition to those being sponsored at Georgia State College.

HOUSE OF DELEGATES ACTION—Adopted the report of the Paramedical Study Committee with the additional recommendations made by the Reference Committee.

Third District Councilor

FRANK A. WILSON, M.D., *Leslie*

There has been no particular activity in the District the year. The fall meeting was held in Perry, with the Peach Belt as host. The spring meeting will be held in Americus, April 20, with Sumter County as host.

As Councilor for the Third District, I have attended all the regular meetings of the Council.

Counties and Secretaries	Members December 31, 1966 MAG Dues Paying Only	Members December 31, 1966 AMA Dues Paying Only	Members December 31, 1965 MAG Dues Paying Only	Members December 31, 1965 AMA Dues Paying Only
Flint				
C. C. Goss				
Ashburn	12	11	14	12
Peach Belt				
M. D. Wynne				
Warner Robins	31	29	35	30
Randolph-Stewart-Terrell				
Mack Allen				
Dawson	14	12	13	11
Sumter				
W. R. Anderson				
Americus	22	20	21	17
Taylor				
E. C. Whatley				
Reynolds	3	3	3	2
	82	75	86	72

REFERENCE COMMITTEE RECOMMENDATION—Your Reference Committee recommends approval of the report.

HOUSE OF DELEGATES ACTION—Adopted the report of the Third District Medical Society Councilor as recommended by the Reference Committee.

Muscogee County Medical Society Councilor

LUTHER H. WOLFF, M.D., *Columbus*

The Muscogee County Medical Society was delighted to be the host to the Medical Association of Georgia for the 1966 Annual Session. The society has instructed its Councilor to urge that the annual session return to Columbus at an appropriate future date.

As Councilor, I have attended all but one of the Council meetings during the past year and have reported significant activities to the county society.

It is noted that the Medical Association of Georgia is becoming involved in a great many more programs than formerly. This apparently is of necessity due to the changing socio-economic pattern of medicine. This Councilor feels that a mild word of warning should be presented to the appropriate reference committee to see that the Medical Association does not become too heavily involved in too many activities.

Counties and Secretaries	Members December 31, 1966 MAG Dues Paying Only	Members December 31, 1966 AMA Dues Paying Only	Members December 31, 1965 MAG Dues Paying Only	Members December 31, 1965 AMA Dues Paying Only
Muscogee				
W. W. Ausbon				
Columbus	122	109	124	108

REFERENCE COMMITTEE RECOMMENDATION—Your Reference Committee recommends approval of the report, but feels that we cannot endorse his concern over the MAG's expanding interests and further feels that our MAG structure is effective and efficient.

HOUSE OF DELEGATES ACTION—Adopted the report of the Muscogee County Medical Society Councilor with the reservations noted in the Reference Committee recommendation on this report.

Rural Health

THOMAS N. LUMSDEN, M.D., *Chairman*

In 1966, the Rural Health Committee of the Medical Association of Georgia continued its efforts to be of service to those working in, and closely related to, the field of health for the rural people in Georgia. Programs aimed at fostering and promoting amicable relations between the Medical Association of Georgia and rural people of the state, particularly those represented by Farm Bureau, continued to occupy a place of considerable importance in the activities of this committee. These activities were again conducted at the local, state, and national level.

At the state level, the second annual Rural Health Conference for the state of Georgia was held at Rock Eagle Conference Ground on October 13 and 14. This was attended by more than 100 leaders in the fields of Rural Health. Excellent cooperation from the University of Georgia Extension Service and from the U. S. Public Health Service Communicable Disease Center was obtained in promoting this conference. The Georgia Farm Bureau also took an active part in promoting and planning this conference. Representatives from the Farm Bureau attended the planning conference and assisted materially in developing a program which would be of interest and value to conference participants from the rural areas. The Council on Rural Health of the American Medical Association also participated in the planning of the program. Dr. Ben Saltzman, Chairman of the AMA's Council on Rural Health, delivered the keynote address for this meeting. MAG was represented at this meeting by the Chairman of Rural Health Committee and by Dr. Dismuke, member of the committee.

The Auxiliary of the MAG had expressed an interest in the activity of the Rural Health Committee. Chairman of this committee addressed the Conference of the auxiliary leaders at the Americana Hotel in Atlanta and appraised them of some of the activities in the field of rural health.

On the national level, MAG was represented at the National Rural Health Conference which was held in Colorado Springs. This committee was asked to give a report on its activities in promoting the first Rural Health Conference as a part of the program at the annual banquet. Medical Association of Georgia was asked to provide assistance in planning the 20th Annual Conference on Rural Health which is to be held in Charlotte, North Carolina on March 10 and 11, 1967. The Chairman of Rural Health Committee accepted this invitation and attended the preplanning conference which was held in Raleigh in May of 1966. The Medical Association of Georgia will again be represented at this conference by members of the Rural Health Committee. It is anticipated that a number of delegates from the Georgia Farm Bureau, the FFA, and the Georgia 4-H Chapters will also attend this meeting. Efforts to stimulate interest in this program have been aimed at many of the people with whom the Rural Health Committee has dealt and it is anticipated that a good representation from the state of Georgia will be present at this meeting.

On the local level, plans are being made to implement one of the major fields of emphasis for this coming year in the field of rural safety. This was one of the subjects which was discussed at the 19th Annual Rural Health Conference in Colorado Springs. This committee, in conjunction with MAG's Automotive Safety Committee, is making plans to implement this program on the state and local level. It is hoped that one of the programs which will grow out of this will be a series of first aid programs for police officers, firemen, and ambulance drivers to provide instructions for many of the people who are the first on the scene in many of the automobile accidents which occur. An educational program is also being contemplated to help reduce some of the accidents which have been so prevalent through out the state the past year. Planning for the third Annual Rural Health Conference is also in the early stages and will be continued during the coming months.

Members of the Rural Health Committee have continually been gratified by the reception which has been granted them by members of Farm Bureau, the University of Georgia Extension Service, and members of the local Home Demonstration Clubs and County Home Economists. Their appreciation of the interest expressed in their welfare and programs by Medical Association of Georgia has been a constant stimulus for this work. MAG has become a source of information and consultation for many of their health programs. Inquiries regarding health policies and request for information have been received from Women's Division of Farm Bureau, 4-H Leaders, and FFA workers. Work of this committee has provided them with a professional source which they have accepted and which they apparently genuinely appreciate and believe is available to them.

REFERENCE COMMITTEE RECOMMENDATION—Your Reference Committee would like to offer its congratulations to this Committee for an excellent job the past year in the areas of rural health and public relations, and heartily recommends approval of the report.

HOUSE OF DELEGATES ACTION—Adopted the report of the Rural Health Committee as recommended by the Reference Committee.

Late Report No. 2

INSURANCE AND ECONOMICS COMMITTEE

HENRY S. JENNINGS, JR., *Chairman*

The Committee is pleased to report that the annual consideration of the experience on malpractice claims covered by the St. Paul-Mercury Insurance Company revealed a satisfactory ratio of premiums against losses and therefore the premium rates will remain unchanged for the next year. It is again noted that the arrangement between MAG and St. Paul continues to result in lower premiums than comparable coverage available from other companies with consequent saving to MAG members of 35-50 per cent.

Closer communication and meetings with Georgia representatives of the Health Insurance Council has been accomplished with the result that an informal liaison committee has been established to work together on matters of mutual interest. The Insurance and Economics Committee wishes to call attention of MAG members to the existence of a Georgia State Committee of H.I.C. and will work through the liaison committee to better inform MAG members of the availability of this mechanism to air any problems, criticisms, or suggestions concerning the insurance industry. This liaison committee is currently developing plans to conduct a "workshop" for the chairmen of the various District and County Society Medical Review Committees. It is anticipated such "workshop" will be arranged in May, 1967.

REFERENCE COMMITTEE RECOMMENDATION—Your Reference Committee recommends approval of the report.

HOUSE OF DELEGATES ACTION—Adopted the Late Report No. 2, Insurance and Economics as recommended by the Reference Committee.

Resolution No. 1

HIGHWAY SAFETY

JAMES M. SKINNER, M.D.
For Spalding County Medical Society

WHEREAS, there exists in the State of Georgia unmarked, unsafe stretches of highways which have been

the site of an unusually high number of accidents and traffic fatalities, and

WHEREAS, these stretches of highways are insufficiently marked to alert unsuspecting drivers, and

WHEREAS, such a strip of highway exists in Spalding County and includes U. S. 41 South to U. S. 341 By-pass, truthfully called Killer Strip, and

WHEREAS, 255 accidents, 90 injuries and 14 fatalities have occurred on this strip of highway since April 1966.

BE IT RESOLVED, that the Traffic Safety Committee of the Medical Association of Georgia actively seek proper warning signs be placed on these highways by the Highway Board of the State of Georgia.

AND BE IT FURTHER RESOLVED, that component medical societies notify the Traffic Safety Committee of the existence of such highways in their areas.

AND BE IT FURTHER RESOLVED, that the Medical Association of Georgia bring to the attention of the Public the existence of these highways and the number of unnecessary accidents and deaths caused by improper or insufficient warning signs.

REFERENCE COMMITTEE RECOMMENDATION—Your Reference Committee recommends approval of the report, as the needs for improvements are apparent on Georgia highways.

HOUSE OF DELEGATES ACTION—Adopted Resolution No. 1, Highway Safety, as recommended by the Reference Committee.

Resolution No. 3

HONORARY MAG MEMBERSHIP FOR RAYMOND P. AHLQUIST, Ph.D.

PRESTON D. ELLINGTON, M.D.
For Richmond County Medical Society

WHEREAS, the By-Laws of the Medical Association of Georgia, Chapter I, Section 7, titled "Honorary Members" states: "Physicians and persons holding the degree of Doctor of Philosophy who have risen to prominence in their professions may be elected to Honorary Membership by the House of Delegates. Nominations for Honorary Membership may be submitted to the House of Delegates by component county societies or Council. These members shall enjoy all the privileges of the Association but shall not vote or hold office nor shall they receive the privilege of Medical Defense or any publication of the Association except by personal subscription." And

WHEREAS, Raymond P. Ahlquist, Doctor of Philosophy, Augusta, Georgia, has attained prominence in his profession, as attested to by a copy of his Curriculum Vitae which is attached to and made a part of this Resolution;

THEREFORE BE IT RESOLVED, that the Board of Trustees of the Richmond County Medical Society submit to the House of Delegates of the Medical Association of Georgia the nomination of Raymond P. Ahlquist, Ph.D. for Honorary Membership to the Medical Association of Georgia.

REFERENCE COMMITTEE RECOMMENDATION—Your Reference Committee deliberated at length the merits of this resolution. While it is provided by MAG Bylaws to bestow honorary membership on persons of outstanding ability and prominence in their profession who do not hold the degree of Doctor of Medicine, it is the consensus of your Reference Committee that this classification of membership should be kept at an absolute minimum which we believe to be in the best interest of the Medical Association of Georgia, at this time. Your Reference Committee recommends that Resolution No. 3 *not* be approved.

HOUSE OF DELEGATES ACTION—Adopted the recommendation of Reference Committee in disapproving Resolution No. 3, MAG Honorary Membership.

Resolution No. 7

PAYMENT OF FEES FOR SURGICAL ASSISTANTS AND HOSPITAL BASED PHYSICIANS BY INSURANCE CARRIERS OPERATING IN THE STATE OF GEORGIA

CHARLES B. THOMAS, M.D.
For Coweta County Medical Society

WHEREAS, hospital accreditation requires qualified physicians as assistants in major surgery and in all hospital based specialities (i.e. radiologists, pathologists, anesthesiologists, etc.);

BE IT RESOLVED, that the Medical Association of Georgia request the State Insurance Commissioner to investigate the feasibility of requiring insurance carriers operating in the State of Georgia to provide a fee schedule for services rendered by these physicians.

REFERENCE COMMITTEE RECOMMENDATION—Your Reference Committee wishes to rewrite the resolved as follows:

"BE IT RESOLVED, that the Medical Association of Georgia request the State Insurance Commissioner to investigate the feasibility of requiring insurance carriers operating in the State of Georgia to provide usual and customary fees for services rendered by these physicians." Your Reference Committee recommends adoption of the resolution as amended.

HOUSE OF DELEGATES ACTION—Speaker Walker recognized Rupert Bramblett, Cumming, who asked for a clear definition of "Hospital based physician." Dr. Donald Rooney, Marietta, discussed this inquiry, along with Milton Johnson, Macon. Dr. William Dowda, Atlanta, also discussed this matter.

After discussion, the House adopted Resolution No. 7, Payment of Fees for Surgical Assistants and Hospital Based Physicians by Insurance Carriers Operating in the State of Georgia as amended by the Reference Committee.

Resolution No. 8

HOSPITAL CLINICAL CHARTS

ASA G. YANCEY, M.D.
For Fulton County Medical Society

WHEREAS, there is a need for revision of hospital clinical charts to make pertinent data easily found and seen, to reduce the overall volume of hospital charts, and to make for efficient but less time consuming charting, and

WHEREAS, it is entirely feasible that a very adequate history and physical examination may be recorded on one sheet of paper, and

WHEREAS, very adequate nurses' notes may be recorded on a redesigned graphic sheet,

NOW THEREFORE BE IT RESOLVED, that a permanent committee be made a part of the Medical Association of Georgia to work in the area of charting, to correlate its efforts with the American Medical Association, Joint Commission on Accreditation of Hospitals, and electronics and recording experts.

REFERENCE COMMITTEE RECOMMENDATION—Realizing the increasing problems relating to hospital clinical charts, your Reference Committee recommends approval of the resolution which would establish a committee to work in the area of charting.

HOUSE OF DELEGATES ACTION—Adopted Resolution No. 8, Hospital Clinical Charts as recommended by the Reference Committee.

Resolution No. 10

OFFICE OF ECONOMIC OPPORTUNITY PROGRAM

WILLIAM W. MOORE, M.D.
Fulton County Medical Society

WHEREAS, there is a need to remove various barriers standing between patients in certain poverty areas receiving the benefits existing in the present private practice of medicine, and

WHEREAS, there is a need of and opportunity for training of paramedical personnel within poverty areas as a major component of attempting to return these persons to the mainstream of the American economy, and

WHEREAS, there is coming into existence a fiscal mechanism through Title XIX of the Social Security Act of 1965 that can eliminate the fiscal barrier to private medical care of the poverty patient, and

WHEREAS, there are numerous developing plans throughout the nation for comprehensive health care programs through the OEO and its local community action programs which should reasonably phase into Title XIX care, and

WHEREAS, there are specific efforts through OEO to establish a rigid system of medical care delivered only or at least 80 per cent on site, and only by full time salaried physicians and dentists which would divorce the private sector of medicine from participation in these programs, and

WHEREAS, there is a need for nationwide understanding among physicians concerning these programs and establishment of AMA policy,

NOW THEREFORE BE IT RESOLVED THAT, the policy of organized medicine relating to OEO sponsored programs should aim toward (1) elimination of OEO participation by phasing into the Title XIX program, and (2) barrier breaking—i.e. identification of needs—provision of transportation and household assistance to effect participation and follow through medical care through private practice, with free choice of physician, usual and customary fees administered through a responsible fiscal intermediary, and training of paramedical personnel,

AND BE IT FURTHER RESOLVED, that this policy be introduced at the upcoming AMA meeting by our Delegates.

REFERENCE COMMITTEE RECOMMENDATION—Your Reference Committee recommends approval of the resolution, as we believe that Title XIX, when properly implemented, will eliminate the health problems with which the Office of Economic Opportunity has concerned itself in promoting the OEO projects concerned with health.

HOUSE OF DELEGATES ACTION—Adopted Resolution No. 10, Office of Economic Opportunity as recommended by the Reference Committee.

It was moved by Reference Committee No. 2 Chairman, Irving Victor, Savannah, and duly seconded that the report of the Reference Committee be approved as a whole, and it was so ordered.

Report of Reference Committee No. 3

William Logan, M.D., Atlanta, Chairman

(The following reports as presented to this Reference Committee are printed in full with the Reference Committee's recommendation and the action pursuant to it taken by the House of Delegates.)

Reference Committee No. 3 met at 2:30 p.m., Twelve Oaks Suite, Marriott Motor Hotel, Atlanta, on May 1, 1967. Members of the Committee present included: William Logan, Atlanta, Chairman; A. Richard Gray, Rome, Vice Chairman; Thomas Lumsden, Clarkesville, Secretary; F. R. Miller, Thomasville; Alex Jones, Griffin; and Ronald F. Galloway, Augusta.

Sixth District Councilor

CHARLES T. COWART, M.D., *LaGrange*

As president of the old Fourth District, it was my privilege to dissolve the old Fourth District and activate the new Sixth District Medical Society. At the organizational meeting, I was elected Councilor for a two year term.

I have attended all District Society meetings and all Council meetings. Deputy Councilors have been appointed in all County Medical Societies in the District, and the résumé of Council meetings has been promptly forwarded. The Deputy Councilors have been requested to make a plea for all members to participate in GaMPAC.

I have also served this year as chairman of the Association's Hospital Activities Committee. This has required a good bit of work. I would like to take this opportunity to thank the members of the committee for their excellent participation.

Counties and Secretaries	Members December 31, 1966 MAG Dues Paying	Members December 31, 1966 AMA Only	Members December 31, 1965 MAG Dues Paying	Members December 31, 1965 AMA Only
Clayton-Fayette				
F. A. Sams, Jr.				
Fayetteville	9	9	5	5
Coweta				
H. C. Drake				
Newnan	20	15	19	15
Lamar				
S. B. Traylor				
Barnesville	4	4	4	4
Meriwether-Harris				
J. E. Collins				
Manchester	14	11	14	11
Spalding				
Arthur Krepps				
Griffin	43	39	43	38
Troup				
E. A. Prieto				
LaGrange	39	33	42	34
Upson				
L. L. Allen				
Thomaston	18	15	17	14
	147	126	144	121

REFERENCE COMMITTEE RECOMMENDATION—The committee reviewed and approved the report.

HOUSE OF DELEGATES ACTION—Adopted the report of the Sixth District Medical Society Councilor as recommended by the Reference Committee.

Bibb County Councilor

BRASWELL E. COLLINS, M.D., *Macon*

The Bibb County Medical Society has enjoyed another good year of growth and activity. Attendance at meetings has been superior.

Your Councilor also attended the quarterly meetings of Council. He served on several committees including the Finance Committee whose proposed budget was approved.

Your Councilor represented the President of MAG as a liaison visitor to the winter meeting of the State Board of Health. This was followed with a report to Council on the progressive work the State Board of Health is doing.

An exciting factor in Central Georgia is the progress being made by the newly organized Sixth District Medical Society of which Bibb County is a new addition. Much interest is evident in this new Society and its future is bright.

Counties and Secretaries	Members December 31, 1966 MAG Dues Paying Only	Members December 31, 1966 AMA Dues Paying Only	Members December 31, 1965 MAG Dues Paying Only	Members December 31, 1965 AMA Dues Paying Only
Bibb				
John T. DuPree				
Macon	184	164	183	160

REFERENCE COMMITTEE RECOMMENDATION—The committee reviewed and approved the report.

HOUSE OF DELEGATES ACTION—Adopted the report of the Bibb County Medical Society Councilor as recommended by the Reference Committee.

Seventh District Councilor

RALPH N. JOHNSON, M.D., *Rome*

Counties and Secretaries	Members December 31, 1966 MAG Dues Paying Only	Members December 31, 1966 AMA Dues Paying Only	Members December 31, 1965 MAG Dues Paying Only	Members December 31, 1965 AMA Dues Paying Only
Bartow				
V. D. Hamilton				
Cartersville	9	6	9	7
Carroll-Douglas-Haralson				
E. H. Grant				
Carrollton	35	31	34	29
Chattooga				
William Hyden				
Trion	6	6	6	6
Floyd				
R. W. Leigh				
Rome	72	64	71	65
Gordon				
Jack Gent				
Calhoun	10	9	10	8
Polk				
Raymond Spanjer				
Cedartown	13	11	13	11
Walker-Catoosa-Dade				
S. L. Goolsby				
Rossville	32	20	32	22
Whitfield				
N. D. Boggess				
Dalton	40	35	40	34
	217	182	215	182

REFERENCE COMMITTEE RECOMMENDATION—The committee reviewed and approved the report.

HOUSE OF DELEGATES ACTION—Adopted the Seventh District Medical Society Councilor report as recommended by the Reference Committee.

Eighth District Councilor

F. G. ELDRIDGE, M.D., *Valdosta*

We of the Eighth District continue to experience difficulty in arranging two meetings of the society during the year. We circulated a return card requesting each member to designate preference of day of week, hour of day, etc., most convenient to each individual. Decision was in majority to meet on Wednesday afternoon; however, after notices of fall meeting were formulated and Douglas chosen as meeting place, the Douglas officials called Van Bennett, M.D., Eighth District President and cancelled the meeting, hence such meeting was not held.

Plans for a meeting in April are being made at the time of this report.

Counties and Secretaries	Members December 31, 1966 MAG Dues Paying Only	Members December 31, 1966 AMA Dues Paying Only	Members December 31, 1965 MAG Dues Paying Only	Members December 31, 1965 AMA Dues Paying Only
Altamaha				
H. L. Morgan				
Baxley	7	6	9	8
Ben Hill-Irwin				
R. D. Roberts				
Fitzgerald	7	7	9	8
Coffee				
Diskin Morgan				
Douglas	11	7	11	9
Camden-Charlton				
H. H. Robinson				
Kingsland	10	9	10	8
Glynn				
E. A. Mayo				
Brunswick	53	49	49	45
Ocmulgee				
Ray L. Johnson				
Eastman	16	10	16	11
South Georgia				
R. L. Nutt				
Valdosta	61	53	61	53
Telfair				
D. B. McRae				
McRae	6	5	6	6
Ware				
Ivey Jacobs				
Waycross	41	39	46	43
Wayne				
Ollie O. McGahee				
Jesup	9	9	10	9
	221	194	227	200

REFERENCE COMMITTEE RECOMMENDATION—The committee reviewed and approved the report.

HOUSE OF DELEGATES ACTION—Adopted the report of the Eighth District Medical Society Councilor as recommended by the Reference Committee.

Tenth District Councilor

ADDISON W. SIMPSON, M.D., *Washington*

Counties and Secretaries	Members December 31, 1966 MAG Dues Paying Only	Members December 31, 1966 AMA Dues Paying Only	Members December 31, 1965 MAG Dues Paying Only	Members December 31, 1965 AMA Dues Paying Only
Baldwin				
W. M. Headley				
Milledgeville	32	24	30	26
Crawford W. Long				
T. A. Montgomery				
Athens	57	50	62	52
Jasper				
B. C. Barrow				
Monticello	3	3	3	3
Jefferson				
W. J. Revell				
Louisville	5	5	5	4
McDuffie				
J. W. Lemley				
Thomson	5	5	7	6
Newton-Rockdale				
R. L. Faulkner, Jr.				
Covington	13	8	12	9
Oconee Valley				
H. A. Thornton, Jr.				
Greensboro	11	8	12	9
Walton				
R. M. Tankesley				
Monroe	10	8	10	9
Washington				
J. W. Brooks				
Sandersville	12	7	13	6
Wilkes				
C. E. Pollock				
Washington	8	7	8	6
	156	125	162	130

REFERENCE COMMITTEE RECOMMENDATION—The committee reviewed and approved the report.

HOUSE OF DELEGATES ACTION—Adopted the report of the Tenth District Medical Society Councilor as recommended by the Reference Committee.

Richmond County Councilor

H. D. PINSON, M.D., *Augusta*

During the past year, I have attended all meetings of the Council of the Medical Association of Georgia.

My main activity has been as a member of the Insurance and Economics Committee and I have taken part in all of the committee's activities.

I have no specific recommendations to make at this time.

Counties and Secretaries	Members December 31, 1966 MAG Dues Paying Only	Members December 31, 1966 AMA Dues Paying Only	Members December 31, 1965 MAG Dues Paying Only	Members December 31, 1965 AMA Dues Paying Only
Richmond				
R. F. Galloway				
Augusta	265	236	251	220

REFERENCE COMMITTEE RECOMMENDATION—The committee reviewed and approved the report.

HOUSE of DELEGATES ACTION—Adopted the report of the Richmond County Medical Society Councilor as approved by the Reference Committee.

Treasurer

JOHN S. ATWATER, M.D., *Atlanta*

The report of the auditors, Ernst and Ernst, is attached. This audit covers the period ending the calendar year December 31, 1966. It is to be pointed out that the Association remains in good financial condition. While the overhead expenses have increased there has also been an increase in income sufficient to meet these obligations.

I should like to thank most sincerely all those who have had a part in the conduct of this office of the Treasurer, especially our most efficient bookkeeper, Miss Thelma Franklin.

ERNST & ERNST
FIRST NATIONAL BANK BUILDING
ATLANTA, GA. 30303

Chairman of the Council
The Medical Association of Georgia
Atlanta, Georgia

We have examined the statement of assets and liabilities of the several funds of The Medical Association of Georgia as of December 31, 1966, and the related statements of income and expenses and fund equities for the year then ended. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances. While it was not practicable to confirm the amount due from the United States Government with respect to the Medicare Fund, we have satisfied ourselves as to this balance by means of other auditing procedures.

In our opinion, the accompanying statement of assets and liabilities and the statements of income and expenses and fund equities present fairly the financial position of the several funds of The Medical Association of Georgia at December 31, 1966, and the results of their operations for the year then ended, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Ernst + Ernst

Atlanta, Georgia
February 13, 1967

STATEMENTS OF ASSETS AND LIABILITIES—BY FUNDS

The Medical Association of Georgia

December 31, 1966

ASSETS

GENERAL FUND

Cash:
Demand deposits ..... $ 5,338.23

Savings deposits:			
Restricted	$ 14,000.00		
Unrestricted	90,000.00	104,000.00	$109,338.23
Accounts receivable:			
Advertisers of The Journal		$ 3,719.63	
Due from Old Age Assistance Program		1,160.60	4,880.23
Other assets			722.85
Property and equipment—on the basis of cost:			
Buildings—Mortgaged		$ 94,454.72	
Furniture and equipment		26,068.64	
		$120,523.36	
Less allowances for depreciation		59,954.54	
		$ 60,568.82	
Land—mortgaged		80,000.00	140,568.82
			$255,510.13
ABNER W. CALHOUN LECTURESHIP FUND			
Cash		$ 82.96	
Corporation stocks (quoted market prices $4,396.50)—at cost		5,897.03	5,979.99
MEDICARE FUND—DEPARTMENT OF THE ARMY			
Cash		$ 36,220.11	
Due from United States Government—service fees paid to physicians and dentists		88,779.89	125,000.00
			$386,490.12

LIABILITIES AND EQUITIES

GENERAL FUND			
Liabilities:			
Note payable to insurance company, $4,000.00 installment, with interest at 5%, due on January 1, each year—secured by loan deed on land and building			$ 7,000.00
Excess of claim fees received over claim expenses—United States Government—Medicare			2,833.63
Advance collections:			
1967 membership dues		$ 87.50	
1967 exhibit space payments		3,500.00	3,587.50
Fund equity:			
Restricted:			
Regular operating purposes		$ 20,000.00	
Lecture expenses		414.04	
		$ 20,414.04	
Unrestricted		221,674.96	242,089.00
			$255,510.13
ABNER W. CALHOUN LECTURESHIP FUND EQUITY			5,979.99
MEDICARE FUND—DEPARTMENT OF THE ARMY			
Advance from United States Government			125,000.00
			$386,490.12

STATEMENT OF FUND EQUITIES

The Medical Association of Georgia

Year ended December 31, 1966

	Balance Jan. 1, 1966	*Income in Excess of Expenses*	*Fund Transfers*	*Balance Dec. 31, 1966*
GENERAL FUND				
Restricted for operating purposes	$ 20,000.00	$ -0-	$ -0-	$ 20,000.00

Restricted for lecture expenses	156.67	-0-	257.37	414.04
Unrestricted	208.595.43	13,079.53	-0-	221,674.96
	$228,752.10	$13,079.53	$257.37	$242,089.00
ABNER W. CALHOUN LECTURESHIP FUND	6,036.49	200.87	257.37*	5,979.99
TOTAL	$234,788.59	$13,280.40	$ -0-	$248,068.99

* Indicates red figure.

STATEMENT OF INCOME AND EXPENSES—BY FUNDS

The Medical Association of Georgia

Year ended December 31, 1966

	General Fund	*Abner W. Calhoun Lectureship Fund*
INCOME		
Medical Association of Georgia dues	$121,425.50	$ -0-
Advertising—The Journal	58,197.84	-0-
Subscriptions—The Journal	1,191.77	-0-
Exhibitors fees—1966 annual meeting	7,525.00	-0-
Interest income	5,896.34	-0-
Dividends—corporate stocks	-0-	$264.42
American Medical Association refund	1,427.66	-0-
Miscellaneous	14.62	-0-
TOTAL INCOME	$195,678.73	$264.42
EXPENSES		
Fixed allotments	$ 9,626.24	$ -0-
Association office	102,647.53	-0-
Association boards	12,891.01	-0-
Related Association activities	896.28	-0-
Contingent fund	10,449.08	-0-
The Journal	46,089.06	-0-
Trustees fees and expenses	-0-	63.55
TOTAL EXPENSES	$182,599.20	$ 63.55
EXCESS OF INCOME OVER EXPENSES	$ 13,079.53	$200.87

* Indicates red figure.

REFERENCE COMMITTEE RECOMMENDATION—The committee approves the Treasurer's Report, but wishes to express concern over the deficit spending.

HOUSE OF DELEGATES ACTION—Adopted the report of the Treasurer as recommended by the Reference Committee with the additional notation of the Reference Committee.

Constitution and Bylaws

GEORGE H. ALEXANDER, M.D., *Chairman*

During the year 1965-66, the then Board on Constitution and Bylaws made a comprehensive study of the Constitution and Bylaws as required at five year intervals by the Bylaws. As a result of this study, a number of amendments were adopted.

At the time this report is being written there have been no proposed amendments submitted to the committee. Because of last year's study, plus the fact that no proposed amendments have been submitted, the committee has not met and has no recommendations to make at this time.

REFERENCE COMMITTEE RECOMMENDATION—The committee reviewed and approved the report.

HOUSE OF DELEGATES ACTION—Adopted the report of the Constitution and Bylaws Committee as recommended by the Reference Committee.

Maternal and Infant Welfare

EUGENE L. GRIFFIN, M.D., *Chairman*

Under the chairmanship of Eugene Griffin, this committee met four times during the calendar year 1966. The committee studies every female death where there is indication of an obstetrical death or the death is in any way associated with pregnancy as well as concerning itself with other matters pertaining to the health of mothers and infants over the state. The major areas of activity are listed in brief as follows:

CASE STUDIES

Fifty-eight cases were studied, 49 of which were reported as resulting from complications of the prenatal

period, obstetrical delivery, and/or the puerperium. There were *94,336* live births in Georgia during 1965; thus, giving a maternal death rate of 5.2 per 10,000 live births. The "big three" in causes of obstetrical death remain hemorrhage, toxemia and sepsis all of which can be classified as preventable. Of those deaths due to hemorrhage, seven were due to ectopic pregnancy. It is also of interest that 18 of the deaths were in the group of mothers who had already had six or more live births.

"GRANNY" MIDWIFE ACTIVITIES

There were 6,686 live births without a medical attendant. This is 686 (10%) less than the previous year. In many areas of Georgia the committees have developed a plan of obstetrical delivery by a physician, in the hospital for the low income high risk obstetrical patients. During the past two years no such new community plan was reported where these patients can pay consistent with their means for obstetrical care. These plans have been accomplished through diligent efforts and close cooperation of the local physicians, hospitals and the health departments of the community. It is urged that plans of this type will be considered by all local medical societies in Georgia. Those plans that have been successful are those in which the local physicians have taken the initiative and leadership.

RECOMMENDATION

That MAG urge the district and county medical societies over the state of Georgia to take the leadership in their counties to develop with the hospitals, local health departments and other community resources, a plan within the means of the medically indigent obstetrical patient for medical and hospital care so that no expectant mother will be forced to have her baby at home without medical care.

PREMATURE BIRTHS

The problem of premature births is continuing at an ever increasing rate. This has been a persistent and substantial increase, for example, the rate in 1947 was 60.8 per 1,000 live births and in 1965 it had risen to 97.

BIRTHS TO UNWED MOTHERS

In 1965 Georgia had a rate of 111 per 1,000 live births. The non-white rate (260.3) is approximately ten times that of the white (26.5).

NUTRITION

Thirty-five counties have a surplus food commodity program and 18 have the food stamp program.

VOLUNTARY STERILIZATION ACT 4584

The administrative mechanism and paper work involved in adhering to the law has proven cumbersome. The committee has been working with the legal advisor to determine safe ways of simplifying the procedure.

FAMILY PLANNING PROGRAM

The committee has given active support to local statewide voluntary family planning programs. The intrauterine contraceptive device is being well received by the indigent and medically indigent population with excellent results being indicated to date.

CERVICAL CANCER SCREENING PROGRAM

The committee has actively supported the establishment of a statewide cervical cancer screening program sponsored by the Georgia Department of Public Health. The first phase has been put into effect for the indigent and medically indigent patients in the maternal child health clinics of the local health departments.

REORGANIZATION OF THE COMMITTEE

The committee shares the concern of the American Medical Association for the need for more studies in the field of perinatal mortality. In order to proceed further into this problem, it was felt that the perinatal mortality sub-committee should be reactivated. This committee will include in its considerations the promotion of a hospital perinatal mortality committee, development of procedural methods for study, development of flow of information between state and local perinatal mortality committees, possibly set up a rating for perinatal mortality, and a uniform classification of perinatal deaths.

RECOMMENDATION

That such hospital approved by the Georgia Hospital Association appoint a perinatal morbidity and mortality committee to study each perinatal death which occurs in the hospital; and to record such deaths and classify them according to the criteria established by the Medical Association of Georgia.

REFERENCE COMMITTEE RECOMMENDATION—The committee approved the report with the addition of "for indigent patients" at the end of the first sentence under the heading of "CERVICAL CANCER SCREENING PROGRAM."

In the last Recommendation on Page 22 of the Delegates' Handbook, the committee recommends changing the wording to read: "That *each* hospital approved by the Georgia Hospital Association. . . ."

HOUSE OF DELEGATES ACTION—Adopted the report of the Maternal and Infant Welfare Committee as amended by the Reference Committee.

Nursing Liaison

CHARLES A. EBERHART, M.D., *Chairman*

Meetings have been held at bimonthly intervals. Doctors Harry O'Rear and Willis Hurst have spoken to us. Representatives of our committee visited Emory University School of Nursing for a full day.

The committee has been at a loss to find clear cut useful aims, and, other than helping to inform ourselves of changes taking place in the Nursing profession, at present, we see little use for the committee otherwise. We continue to be appalled at the attitude of Nursing educators with regard to the shortage of Nurses. They predict the shortage will become worse. They seem enthralled with the idea of up-grading the academic phase of nursing education regardless of its devastating effects on patient care in general hospitals. The general tenor is one of making nursing an ever more sophisticated profession, dwelling on the complicated and limited areas and forever neglecting the broad base upon which the profession should be grounded.

The American Nursing Association released its position paper this year which is identical with the National League of Nursing. The AMA Committee on Nursing is in full agreement with this stand which calls for the

phasing out of diploma schools as rapidly as possible. This is occurring rapidly in Georgia as three diploma schools have closed in Savannah and other closures are pending. The Associate Degree (two year program) is getting off to a slow start. The faculty of the diploma school is needed in the Associate Degree program. In other words, instead of ADP being an additional source of supply, it is proving to be a diminishing only source.

The composition of the committee is unsatisfactory. Doctors McDaniel and Sam Patton find it difficult to attend.

Recommendations to MAG are that two young physicians from the Atlanta metropolitan area be added, and, possibly a Negro physician.

REFERENCE COMMITTEE RECOMMENDATION—The committee approved the report with the deletion of the next to the last paragraph on page 24 regarding composition of the committee; and changing the wording in the last paragraph to read, "Recommendation to MAG that two young physicians from the Atlanta metropolitan area be added including a Negro physician."

HOUSE OF DELEGATES ACTION—Adopted the report of the Nursing Liaison Committee as amended by the Reference Committee deleting the next to the last paragraph regarding the composition of the committee and changing the wording in the last paragraph to read, "Recommendation to MAG that two young physicians from the Atlanta metropolitan area be added including a Negro physician."

Supplemental Report of Committee on Nursing Liaison No. E

DIPLOMA SCHOOLS OF NURSING

CHARLES EBERHART, M.D., *Chairman*

WHEREAS, the nationwide shortage of nurses becomes more acute and is predicted to become worse, and

WHEREAS, diploma (hospital) schools of nursing now train 80 to 90 per cent of nurses while the other four programs train the remainder of the nurse output, and

WHEREAS, there is an alarming number of diploma schools closing in Georgia and other closures contemplated, and

WHEREAS, a survey of MAG membership indicates that 70 per cent of the physicians were of the opinion that nurse trainees should be given more bedside experience and 90.5 per cent were of the opinion that nursing educational programs should not be divorced from hospitals;

THEREFORE BE IT RESOLVED, that the MAG House of Delegates recommend:

(1) That diploma schools of nursing in Georgia (and/or other States) form an Association with authority for accreditation of its own schools, and the accrediting authority be composed of equal numbers of nurses, hospital administrators and physicians, and

(2) That the academic program of such schools be modified to permit more bedside experience for trainees, and

(3) That diploma school graduates be given a separate State Board examination based on nursing knowledge and skills rather than a severe test of theory, and

(4) That new diploma schools of nursing be started as rapidly as possible in hospitals of 150 bed capacity and larger, and

(5) That MAG give its full support to this program and aid in recruitment, and

(6) That colleges be requested to give credit to the diploma school graduate towards a baccalaureate degree when such credits are of college level and obtained in an accredited diploma institution, and

(7) That a copy of this resolution be sent to all high school counselors in Georgia, and

(8) That a resolution to accomplish the objectives listed above be prepared and presented to the June 1967 AMA House of Delegates Meeting by the MAG Delegates to that body.

REFERENCE COMMITTEE RECOMMENDATION—The committee, while strongly approving the principles stated in the Supplemental Report, felt that additional consideration is needed by the Medical Education Committee, Paramedical Study Committee, Hospital Activities Committee and the Nursing Liaison Committee. Therefore, disapproval of the Supplemental portion of the Nursing Liaison Committee report is recommended at this time. It is felt that before any specific recommendations can be made to the MAG House of Delegates or instructions given to the AMA Delegates, the above additional studies should be made.

HOUSE OF DELEGATES ACTION—Adopted the recommendation of the Reference Committee in disapproving the Supplemental Report E, Nursing Liaison Committee at this time, and also adopted the additional recommendations made by the Reference Committee requesting that more consideration be given this matter.

Medical Education

GEORGE R. DILLINGER, M.D., *Chairman*

The committee was appointed by the President of MAG to represent the Association in the development of the Georgia Regional Program, as a part of the Advisory Group. The Steering Committee included two members of our Medical Education Committee; namely, J. W. Chambers, representing MAG; and J. Gordon Barrow, representing the State Department of Health. After some eight meetings of the Advisory Group and many meetings of the Steering Committee, the Grant was awarded to the Medical Association of Georgia. J. W. Chambers was made Coordinator for the program. This Program as presently developed will run for two and one half years.

The Second Biannual Conference on Medical Education is being held at Callaway Gardens, March 3, 4 and 5, 1967. The Conference will primarily be based on two recent important publications, which has been forwarded to all participants—*The Graduate Education of Physicians*, otherwise known as the Millis Report, and the *Report of the Ad Hoc Committee on Education for Family Practice* of The Council on Medical Education of the American Medical Association. These reports will probably influence Medical Education more than any other factor, since the Flexner Report in the early years of this century.

It will be necessary for a supplemental report concerning recommendations to the House of Delegates, after the Conference on Medical Education.

Supplemental Report of Committee on Medical Education No. D

THE 1967 CONFERENCE ON MEDICAL EDUCATION

GEORGE R. DILLINGER, M.D., *Chairman*

The Conference on Medical Education, jointly sponsored by Emory University School of Medicine, the Medical College of Georgia and the Medical Association of Georgia, was a success, in 1965. From that meeting

it was learned that we all could talk the same language. The one conclusion reached was that "lack of communication" is the one problem aggravating the differences that exist between the medical educators and the practicing medical profession.

The 1967 conference held at Callaway Gardens, March 3, 4, and 5, pinpointed many of the present problems facing medical education today.

Certainly we owe a vote of thanks to the Council on Medical Education of the American Medical Association and its members who aided and participated in the conference. The Medical College of Georgia and the Emory University School of Medicine deserve our thanks and support for their aid and assistance, as well as for their participation in the program.

The conference discussion topics were the principal problems facing medical education today. They were:

A. Combining Formal Premedical and Medical Education.
B. The Place of Internship and Residency.
C. The Primary Physician.
D. The Control of Specialization.

Also the symposium presented on Heart Disease, Cancer, and Stroke and Related Diseases, created more interest and understanding of problems that our Association is engaged in.

The "fragmentation" of medical practice, is the result of many changing factors. They are:

1. The AMA sponsored Flexner investigation and report in the early years of the 20th Century, resulted in the upgrading and scientific development of medical education as we know it today;

2. In the third decade, graduate medical education became the prime objective and political objective of the specialty societies. The developing and emerging programs of the medical colleges and universities were submerged;

3. The proliferation of specialty boards, subspecialty boards, specialty societies, subspecialty societies, voluntary health agencies without number, changes in medical faculties, and the vast expansion of medical and scientific research, all enter into the "fragmentation" of "medical practice";

4. The subsidization by government, of research and other facets of health and medical care problems, also increases the divisions among us.

The above are but a few of the existing "facts of life" that the physician of today must live with. In the meantime, the physician must do the best that he can for the all-too-often forgotten man, the patient.

The theme of the 1967 Conference was: Georgia's Needs in the Field of Medical Education. Many problems were presented and discussed, for which we must find the answers.

The Surgeon General of the Public Health Service says that we are now 50,000 physicians short of the number necessary for present needs. Georgia now has an exploding population, recently estimated at 4,445,000. To adequately service such a population with proper medical care, it is estimated that over 6,000 physicians would be necessary. Certainly nurses and other paramedical personnel are in equally short supply. There is also a marked maldistribution of needed professional care. We do not now and probably not in the foreseeable future, have the answers to cope with these problems. The Medical Association of Georgia, the medical colleges, and the medical educators must all attempt to find the answers.

The Medical Education Committee, should provide goals and seek to provide answers. The Committee should, using existing facilities, conduct a survey to determine the actual and potential shortages of physicians, nurses and other paramedical personnel. This survey to be reported to Council and the 1968 House of Delegates, together with recommendations and accomplishments. If we do not do our part to supply adequate personnel for the care of the sick and injured, for teaching, for research, and other necessary health programs then others will do it for us.

Suggested partial answers could be as follows:

1. That each existing medical college should increase the size of the entering classes, as rapidly as is feasible, so that within a few years Georgia may be producing some 300 physicians per year. (Certainly that would be the quickest way to increase our output of physicians.) To do this would mean more faculty, more money, and greatly increased operating costs.

The MAG needs a continuing program in the field of medical education. Planning a course of action for the years ahead is imperative.

Only medical schools can produce physicians. MAG, through its Committee on Medical Education, should be ready at all times, to aid and assist our medical colleges in accomplishing their mission.

(A) Program development for a 1969 Conference should start before 1968.

(B) There should be continuous communication between the Chairman of the Medical Education Committee, MAG and the Medical College Faculties.

2. Where feasible, using every existing committee and allied organization available, nursing schools, colleges, and vocational schools, should be encouraged and helped to increase our output of nurses, technicians, and all other existing paramedical personnel.

3. Should Georgia have a third Medical College? We need facts and figures to consider this problem. If a new school should be the answer, it would require a minimum of eight to ten years, after funds and definitive plans are ready, to start producing physicians. It would also entail some 75 to 100 million dollars in building funds, and a very respectable annual budget. Before your Committee should make any recommendation on this suggestion, it would need outside advice. Perhaps by a joint Committee from the Council on Medical Education of the AMA and the Association of American Medical Colleges.

The following quotation points up our present dilemma: "Lord Brain, the eminent neurologist, in a presidential address, to the British Association for the Advancement of Science, emphasized how little man knows about himself. In the last century it was widely believed by social reformers that one had only to improve man's environment and raise his standard of living, and all crime and depravity would disappear from the earth. This century has shown the tragic fallacy of that point of view. We still have a great deal to learn about human behavior. Man is a mysterious creature full of complexities, and while science is making immense advances, the use and development which we are making of them is still pitiably small. We are still following the time-honored habit of leaving things to chance. The immediate question is not so much a matter of obtaining more knowledge, but of putting to use the knowledge we have."

REFERENCE COMMITTEE RECOMMENDATION—The committee approves the report and supplemental report of

the Medical Education Committee with highest commendation.

HOUSE OF DELEGATES ACTION—Adopted the report of the Medical Education Committee and Supplemental Report No. D, Medical Education Committee as recommended by the Reference Committee.

AMA-ERF

BRASWELL E. COLLINS, M.D., *Chairman*

The AMA-ERF Committee has a proud record of assisting more than 30,000 students, interns or residents. This program has played an important part in helping young people overcome financial obstacles. During the past year, however, bank guarantees on these new loans have become restricted because the general banking system has been forced to raise its interest rates.

Loans are still available at slightly increased interest. Applicants can get application material from Deans of Medical Schools.

The "Loan Guarantee Program" thus continues with the highly successful progress of the "Institute for Biomedical Research" and "Funds for Medical Schools."

This is to thank the physicians, auxiliary members and lay personnel who have contributed to AMA-ERF.

It is hoped the "Programs" will see even greater progress through the generous contributions of you and your friends.

REFERENCE COMMITTEE RECOMMENDATION—The committee approves this report.

HOUSE OF DELEGATES ACTION—Adopted the report of the AMA Education and Research Foundation Committee as recommended by the Reference Committee.

Woman's Auxiliary

MRS. JOHN MEIER, *President*

Another year of dedicated service to the Medical Association of Georgia, 37 of the County Medical Societies, and the citizens of Georgia, has been put in the record by members of your state Auxiliary. I am happy and proud to report that the state of the Auxiliary is excellent.

Physicians' wives, all across the state, are showing an increased awareness and a true interest in the health and related problems and concerns of their communities and their state. Hundreds of them are serving on the executive boards of voluntary health agencies, educational, cultural, and political organizations, not only locally, but on the state and national level as well. Countless hours of service are given freely and eagerly to their communities, youth, hospitals, the crippled or handicapped, older people, and to international health organizations.

Our local Auxiliaries acquaint us with the unmet needs of our communities and stimulate us to do something about them—either as auxiliary groups or as knowledgeable individuals. We recognize that it is unrealistic for harried physicians to take time from their patients to sit in daylong community conferences, or even in many prolonged luncheon meetings. But the physician's wife, well informed through their auxiliary are providing a real extension of organized medicine into their communities through their service and by expressing medicine's point of view, which might not otherwise be heard. Echoing the founders of the American Medical Association, the Woman's Auxiliary stated its first purpose at its founding in St. Louis in 1922 to be: "To assist the American Medical Association in its program for the advancement of medicine and the public health." This is being done well, and in a myriad of ways, all across our state.

Our second purpose is "to cultivate friendly relations and promote mutual understanding among physician's families." It is only through our Auxiliaries that we physicians' wives can meet together with common bonds, interests and concerns—regardless of our husbands' hospital affiliations, medical specialties, or geographical differences.

This year I have traveled over 13,000 miles representing your Auxiliary in Chicago, Memphis, and visiting 24 County and three District Auxiliaries. In each of these I have found that this purpose of friendship and mutual understanding is the primary concern.

Again this year, over $5,000.00 has been given in scholarships by Georgia Auxiliaries to worthy students interested in one of the many health careers. Our William Dancy M.D. Student Loan Fund has reached a value of almost $33,000.00 with 31 loans outstanding to Georgia medical students or recently graduated physicians. Approxiately $5,000.00 has been donated to the American Medical Association Education and Research Foundation to benefit our medical schools and our medical students.

Over 1,500 high school students have been encouraged to develop or continue their health career interests through their Allied Medical Career Clubs. In addition to sponsoring AMC Clubs, many Auxiliaries have organized Health Career Days, taught First Aid or Civil Defense courses to students, and worked closely with young people volunteering their service to hospitals, convalescent homes, and their communities.

A continued emphasis has been placed on Health Education. AMA pamphlet racks, *Today's Health* Guides, medical dictionaries, and the AMA Health Educators series have been placed in schools and libraries. Seminars, panel discussions, and programs have been presented to many youth and education groups. Pharmacists' wives, ministers' wives, attorneys', teachers', and legislators' wives have been invited to participate in these programs. Many other organizations have been interested in assisting in these projects and have been made more aware of the need for health education for our young people.

Again, legislation has played an important role in our Auxiliary work. The bills pending in our state legislature have been discussed and the state medical society's opinion presented. Many, many women have been active in their political parties from the precinct to the national level. The power of women at the polls is only now becoming truly appreciated, and your Auxiliary can provide the political right arm needed by organized medicine.

International, Rural, and Mental Health have also been of interest to our members this year, with positive and contributing programs and projects being done in each of these fields.

I would like to suggest that the Medical Association of Georgia invite our state committee chairman to meet with their corresponding committees so that they can be better informed in the ways they can be of assistance in the various goals and projects undertaken in our state.

I would also like to suggest that the team membership plan, that is, paying the $4.00 state and national Auxiliary dues with MAG and AMA dues be stressed more, particularly in those areas where there is no organized Auxiliary.

Physicians' wives can be the best public relations representatives serving medicine, but only if they are informed and knowledgable. For this, we need your continued cooperation and support. Ask, and you shall receive, enthusiatic support and assistance in any program you need us in.

I would like to express our appreciation and gratitude to our Advisory Committee for MAG and the professional staff. They have all been most helpful and kind.

It has been a privilege, an honor, and an education to serve as president of the Woman's Auxiliary to MAG this year. Thank you.

REFERENCE COMMITTEE RECOMMENDATION—The committee approves this report with the additional recommendation that MAG have inserted on the dues envelope the item regarding payment of Auxiliary dues, to be used at the discretion of each county medical society.

HOUSE OF DELEGATES ACTION—Speaker Walker recognized J. Watts Lipscomb, Forest Park, who stated that the matter of collection of dues was to be discussed in a later Reference Committee report in consideration of a recommendation concerning centralized billing. On motion (Lipscomb-Dowda) it was moved to amend the Reference Committee report by excluding the "dues" part of the recommendation.

Speaker Walker recognized Luther Vinton, Decatur, who stated that the centralized billing recommendation considered by another Reference Committee only pertains to a study committee on this matter.

Speaker Walker called for a vote on the previous motion, and the motion was adopted. In adopting this motion, the House then approved the Auxiliary Report that was recommended by the Reference Committee and disapproved the additional recommendation made by the Reference Committee that MAG have inserted on the dues envelope the item regarding payment of Auxiliary dues to be used at the discretion of each county medical society.

It was moved by Reference Committee No. 3 Chairman, William Logan, Atlanta, and duly seconded that the report of the Reference Committee be approved as amended, and it was so ordered.

At this time, Speaker Walker called on Vice Speaker Harrison Rogers, Atlanta, to preside.

Report of Reference Committee No. 4

Henry Bridges, M.D., Bainbridge, Chairman

(The following reports as presented to this Reference Committee are printed in full with the Reference Committee's recommendation and the action pursuant to it taken by the House of Delegates.)

Reference Committee No. 4 met at 2:30 p.m., Hickory Hill Suite, Marriott Motor Hotel, Atlanta, on May 1, 1967. Members of the Committee present included: Henry Bridges, Bainbridge, Chairman; John R. Fair, Augusta, Vice Chairman; Donald Rooney, Marietta, Secretary; Donald Branyon, Athens; Jack Raines, Columbus; E. T. McGhee, Dalton; and Frank Wilson, Atlanta.

Legislation

J. Frank Walker, M.D., *Chairman, National Legislation*
Harrison L. Rogers, Jr., M.D., *Chairman, State Legislation*

Due to the early deadline for receipt of this report (in order that it be printed in the Handbook) the Committee agreed that it would also make a Supplemental Report to be written after the adjournment of the Georgia General Assembly. Accordingly, this report deals only with those Committee activities which occurred during the interim of the 1966 MAG Annual Session and March 1, 1967.

NATIONAL LEGISLATIVE ACTIVITY

Since the enactment of Medicare in the summer of 1965, all legislative activity on the national level has been of an anticlimatic nature—not unimportant by any means, but of such a nature as not to inspire massive opposition of the calibre that went into the Medicare campaign.

Your Committee has, nonetheless, maintained an alert "weather eye" on legislation of significance to the medical profession and has responded on each occasion when called upon by the AMA or by the MAG Council.

Some of the bills at the Federal level of concern to MAG and upon which positions were taken and subsequently related to members of the Georgia delegation in the Congress were: Research Animals Bill, in which proponents attempted to enact such stringent requirements in the use of laboratory animals as to jeopardize medical research; Keogh Amendments, which repealed the 50 percent limitation on deductible amounts put away for self employed retirement funds; Minimum Wage Bill; Part B Medicare amendment on the generic prescription of drugs; Heart Disease, Cancer and Stroke Amendments; and, the Hart Bill (presently pending in the Senate Judiciary Committee) which proposes to make illegal physician dispensing of eyeglasses, physician ownership of pharmacies and physician stockholders in drug repackaging houses.

Your Committee is following closely the hearings and developments in the House Ways and Means Committee on the multiple amendments to Title XVIII and Title XIX of the Medicare Law enacted in 1965.

The annual Congressional luncheon trip for 1966 was held in June. Every member of the Georgia delegation in the House and Senate (except Senator Talmadge who was not in Washington at the time) was present at the luncheon meeting held in the Speaker's Dining Room at the Capitol in Washington. One physician representative from each Congressional District attended this meeting and acted as personal host for his Congressman. The meeting was labeled a success by all who attended and continues to be our best public relations project with the Congress.

STATE LEGISLATIVE ACTIVITY

At the time of writing this report the only conclusive action taken on a bill of interest to MAG by the Georgia General Assembly is on our "Medical Interning License" Bill. It has been passed by both the House and Senate and has now gone to the Governor for his signature.

This bill was made necessary by a statute enacted by the 1966 General Assembly to require a one year's internship as a condition of full licensure in Georgia. The 1966 Act unfortunately made reference to an "interning license" never before required by Georgia law. The Attorney General's office interpreted the Act to mean that a license must be obtained in order to serve an internship.

Another section of the Georgia Medical Practice Act

DRUG MANUFACTURER OFFERS FILM AND SELF-RATING SCALE ON MEASUREMENT OF DEPRESSION

"The Measurement of Depression" is a film depicting the development, validation, and use of a scale for the quantitative measurement of depression.

The scale was designed by Dr. Willim W. K. Zung, Durham, N. C., psychiatrist. Although initially devised for use in psychiatric research, it readily lends itself to the general practice of medicine where most depressions are first encountered.

The film is designed for medical educational purposes at meetings of hospital staffs, county societies or specialty groups. The self-rating scales, available in quantity for use in office practice, come complete with full instructions.

Both the film and pads of the self-rating scale are available free upon request from Lakeside Laboratories, Inc., Milwaukee, Wisconsin 53201.

The scale consists of a list of 20 statements expressed in the common language of the patient. The statements comprehensively delineate widely recognized symptoms of depression including disturbances of mood, biological and psychological function. Testing and scoring patients usually requires less than five minutes.

Statistical studies indicate that measurements so obtained correlate reliably with other more time-consuming depression rating scales in current use.

Use of the scale in a variety of patients with physical complaints without apparent organic basis may uncover and measure depression in so-called "hidden depressions" saving valuable time in the clinic and several sessions of probing interviews.

The film may also be obtained through a Georgia Lakeside Laboratories representative: *Mr. Charles W. Bradley, 85 Valley View Drive, Fairburn, Georgia 30213.*

1967 CALENDAR OF MEETINGS

State

August 9-13—Sixth Annual Southwide Lawyers and Physicians Conference, "Is Jesus Christ Relevant in Modern Medicine and Law?," Lake Junaluska, N.C.

September 15-16—Tidewater Heart Association (Eighth Annual Cardiovascular Symposium), Golden Triangle Motor Hotel, Norfolk, Va.

September 17-19—Birmingham Academy of Medicine, Tenth Annual Medical Progress Assembly, Parliament House, Birmingham, Ala.

May 5-7, 1968—114th Annual Session of the Medical Association of Georgia, Augusta.

Regional

July 23-29—Southern Seminar in Obstetrics and Gynecology, Oak Grove Inn, Asheville, N.C.

National

June 18-22—American Medical Association Annual Convention, Atlantic City, N.J.

June 26-29—American Orthopaedic Association, The Homestead, Hot Springs, Va.

August 27-Sept. 1—American Academy of Physical Medicine and Rehabilitation, The Americana, Miami Beach, Fla.

September 7-9—American Association of Obstericians and Gynecologists, The Homestead, Hot Springs, Va.

September 15-23—American Academy of General Practice, Dallas.

September 25-26—Congress on Occupational Health, The Regency-Hyatt House, Atlanta.

Tandearil®
oxyphenbutazone

Tandearil in Painful Shoulder

Therapeutic Effects: Stiffness and pain may diminish within 2 days, and full mobility may be restored within a week. These effects are obtained with oxyphenbutazone alone or combined with physiotherapy or local hormonal injections. The drug is usually well tolerated and does not affect pituitary-adrenal function or immune response.

Contraindications: Edema; danger of cardiac decompensation; history or symptoms of peptic ulcer; renal, hepatic or cardiac damage; history of drug allergy; history of blood dyscrasia. The drug should not be given when the patient is senile or when other potent drugs are given concurrently.

Warning: If coumarin-type anticoagulants are given simultaneously, watch for excessive increase in prothrombin time. Pyrazole compounds may potentiate the pharmacologic action of sulfonylurea, sulfonamide-type agents and insulin. Carefully observe patients receiving such therapy. Use with great caution in the first trimester of pregnancy.

Precautions: Obtain a detailed history and a complete physical and laboratory examination, including a blood count. The patient should be closely supervised and should be warned to report immediately fever, sore throat, or mouth lesions (symptoms of blood dyscrasia); sudden weight gain (water retention); skin reactions; black or tarry stools or other evidence of intestinal hemorrhage. Make regular blood counts. Discontinue the drug and institute countermeasures if the white count changes significantly, granulocytes decrease, or immature forms appear. Use greater care in the elderly and in hypertensives.

Adverse Reactions: The most common are nausea, edema and drug rash. The drug has been associated with peptic ulcer and may reactivate a latent peptic ulcer. Infrequently, agranulocytosis, or a generalized allergic reaction may occur and require withdrawal of medication. Stomatitis, salivary gland enlargement, vomiting, vertigo and languor may occur. Leukemia and leukemoid reactions have been reported but cannot definitely be attributed to the drug. Thrombocytopenic purpura and aplastic anemia may occur. Confusional states, agitation, headache, blurred vision, optic neuritis and transient hearing loss have been reported, as have hyperglycemia, hepatitis, jaundice, and several cases of anuria and hematuria. With long-term use, reversible thyroid hyperplasia may occur infrequently. Moderate lowering of the red cell count due to hemodilution may occur.

Dosage in Painful Shoulder: 600 mg. daily in divided doses for 2 to 3 days; 300 mg. daily thereafter. Usual duration of therapy: 2 to 7 days.

Availability: Tablets of 100 mg. 6562-VI(B)R

For complete details, please refer to full prescribing information.

Geigy
Geigy Pharmaceuticals
Division of Geigy Chemical Corporation
Ardsley, New York

prohibited the issuance of a license to anyone other than citizens of the United States. Therefore all non-citizens serving internships in Georgia hospitals would have been required to be discharged had not that portion of the 1966 statute been repealed. The law as now written, therefore, requires a one year's internship before getting a medical practice license, but does not prohibit a non-citizen from serving an internship in Georgia.

A Supplemental Report detailing the outcome of bills of interest to MAG in the 1967 General Assembly will be filed with the House of Delegates upon adjournment of the Legislature.

Supplemental Report of the Committee on Legislation No. B

1967 SESSION OF GEORGIA GENERAL ASSEMBLY

J. Frank Walker, M.D., *Chairman* (National)
Harrison L. Rogers, Jr., M.D., *Chairman* (State)

The 1967 session of the Georgia General Assembly was an extremely busy one for your state Legislative Committee. There were approximately 50 bills of interest and concern to MAG introduced. Many of these concerned matters of recurring interest such as podiatry, while many concerned themselves in areas not heretofore made subject to legislative review.

Against the background of a General Assembly characterized by two important considerations, (1) the installation of a new Administration, and (2) the advent of "legislative independence," MAG experienced an overall successful session. It succeeded in the defeat of those bills on which it had an established posture of opposition, and at the same time it lost only one of the bills in which it had a primary posture of support. Final action on many of the bills MAG supported will not be possible until the 1968 session. However, under the system of a two year legislative period, those bills not decisively resolved at the '67 session will remain as "live bills" and will be carried over to the '68 session of the General Assembly.

The following is an accounting of the bills in which MAG and your Committee had a primary interest during the 1967 session:

OPTOMETRY: S.B. 9, a bill sponsored by the Georgia Optometric Association, was designed to prohibit agencies of State government from referring recipients of benefits under programs administered by such agencies to an ophthalmologist or to any M.D. for a medical examination of the eye. Under the terms of the bill recipients would have selected their own practitioner—optometrist or ophthalmologist. S.B. 9 was reported "do not pass" from the House State of Republic Committee by a vote of seven to six after passing the Senate. MAG opposed this bill vigorously in the 1967 session and will continue its opposition next year, if necessary.

PODIATRY: There were two podiatry bills—H.B. 408, a general bill providing for the forced coverage of podiatric services in all Blue Shield policies; and, H.B. 803, a local bill designed to accomplish the same objective in Fulton County only. Both were defeated on the floor of the House due to lack of a Constitutional majority of 103 votes required for passage. MAG opposed both bills.

CRIMINAL ABORTION: H.B. 281, a bill to liberalize Georgia law with respect to abortion passed the House overwhelmingly, but got "bottled up" in the Senate Judiciary Committee. This bill provided for a legal abortion when the three following conditions have been met: that the procedure be performed in a hospital or other medical facility; that two consultative opinions be obtained pursuant to an examination given by the two consultants in addition to one required by the physician proposing to do the abortion; and, that written intention of performing the abortion be filed with the hospital or other institution and maintained as a permanent record. This bill will remain a "live bill" and could be acted upon decisively at the 1968 session. MAG supported this bill and will continue its active support.

INTERNING LICENSE REPEALER: The bill, H.B. 127, was made necessary through the inadvertent requirement of a bill enacted the previous year to require a license to intern in Georgia. In 1966 a bill to require a year's internship as a condition for licensure was enacted. It unfortunately and (inadvertently) also required a license to serve an internship, which prior to that time had not been in the Georgia law. Another Section of the Georgia Medical Practice Act provided that no one but American citizens could be given a license in Georgia. The effect, therefore, of the 1966 statute would have made necessary the discharge of all non-citizens serving internships in Georgia. Under H.B. 127, which was sponsored by MAG, so much of the '66 statute requiring a license to intern was repealed and the requirement for completion of an internship prior to licensure was retained.

TITLE XIX IMPLEMENTATION: House Bill 594, to implement the Title XIX (Federal) program was introduced and enacted. H.B. 594, was in fact, an amendment to "The Georgia Public Assistance Act of 1965" and thus legislatively established the Department of Family and Children Services as the State agency for the implementation of the Title XIX program. The bill was amended, however, to provide that the Department of FACS "enter into reciprocal and cooperative agreements with other agencies of the State which shall include agreements with the Georgia Department of Public Health for medical participation in the health service aspects of planning, and medical supervision of the delivery, and the evaluation of health care services, and with agencies of any other States relative to the providing of assistance or service to residents and non-residents."

CLINICAL LABORATORIES: House Bill 755 would require the licensing of all clinical laboratories, blood banks and tissue banks in Georgia. Sponsored at the behest of the Georgia Association of Pathologists with the endorsement of MAG and the State Health Department, H.B. 755 would not require the licensing of laboratories run by physicians as an adjunct to their own practice. This bill was favorably reported from the House Hygiene and Sanitation Committee, but never called for a vote on the floor. It will remain as a "live bill" and could be called to the floor for a vote at the 1968 session.

HOSPITAL-MEDICAL RECORDS: A bill, H.B. 107, sponsored by the Georgia Hospital Association enumerating to whom and under what circumstances disclosure of certain hospital records may be made was enacted. As passed by the House the bill was permissive in nature—that is, it did not require the hospital to disclose its records. The bill was amended by the Senate

to state that the hospital "shall not withhold" its records. This amendment was accepted by the House.

TRAFFIC SAFETY: A package of four traffic safety bills, endorsed by MAG, was introduced but only one was enacted. The package consisted of: H.B. 137, reflectorized licensed plates; H.B. 138, use of radar by cities; H.B. 139, periodic test for renewal of driver's licenses; and H.B. 140, driver education in Georgia schools. Of these bills, only H.B. 138, use of radar by cities, was enacted.

WORKMEN'S COMPENSATION: House Bill 80, among other things, provided for an increase from $2500 to $5000, in the amount that could be payable in medical, hospital and ancillary fees. This bill supported by MAG was killed in Committee. A resolution creating a Study Committee in the field of Workmen's Compensation was enacted.

BLUE CROSS-BLUE SHIELD: Four bills that would affect the operation of the Blue Plans in Georgia were introduced, but did not get reported from the House Insurance Committee. These were: H.B. 526, providing that a majority of the members of Blue Shield Boards of Directors shall be composed of subscribing members; H.B. 527, prohibiting Blue Shield advertising on the premises of a hospital; H.B. 528, prohibiting Blue Cross from entering into a contract with any hospital to pay a lesser rate than the rate charged other patients whether insured by another carrier or uninsured; and H.B. 529, providing that a majority of the members of the Blue Cross Boards of Directors shall be subscribers. These bills will remain as "live bills" during the interim and could be acted upon next year.

PHARMACY CODE: S.B. 46 to recodify all Georgia laws relating to pharmacy was enacted. The anticipated effort by osteopaths to amend this bill to eliminate the restriction on their prescription rights was never made.

MISCELLANY: There were other bills and resolutions also of concern to MAG, among which were: control of LSD, air pollution, licensed practical nurses, consent for medical treatment, VD education in the public schools and study committee on treatment of the mentally ill.

COMPOSITE SUMMARY: During the 1967 session of the General Assembly there were 838 House Bills, 370 House Resolutions, 198 Senate Bills and 127 Senate Resolutions for a grant total of 1,533 legislative items introduced.

Your Committee wishes to acknowledge and express its gratitude to those many physicians across the State whose personal contact with their legislators made the MAG 1967 legislative program a successful one. Without their help the job could not have been done. Also acknowledgement of the splendid service rendered by MAG legal counsel to the legislative effort of your Committee is in order.

Your Committee would like to pay special tribute to four physicians who served as members of the House of Representatives. Their willingness to take leave of their practice and serve in the General Assembly is the personification of good citizenship at work. It speaks eloquently of their readiness to serve both their constituents and the medical profession. These physicians are: Carl P. Savage, Montezuma; Frank P. Holder, Jr., Eastman; C. C. Moreland, Monroe; and A. S. Johnson, Sr., Elberton.

REFERENCE COMMITTEE RECOMMENDATION—These two reports were considered together and in the absence of any specific recommendations, both were approved with commendation.

HOUSE OF DELEGATES ACTION—Adopted the report of the Legislative Committee and the Supplemental Report No. B of the Committee on Legislation as recommended by the Reference Committee.

Medical Ethics

PETER HYDRICK, M.D., *Chairman*

The Medical Ethics Committee was called upon to meet twice during the year on Ethical questions which were presented to it from the membership. A third meeting was a Medical Ethics Conference for County Medical Society Officers held at the American Motor Motel in December 1966.

The Committee has one recommendation to make to the House of Delegates for their consideration and that is the establishment of a Medical Disciplinary Board, elected by the MAG, legislated by the State of Georgia.

At your direction this Committee will place in your hands for consideration and possible adoption by the House of Delegates a Medical Disciplinary Act for the State of Georgia.

REFERENCE COMMITTEE RECOMMENDATION—Your Reference Committee approved the intent of the report of this Committee and took note of a similar report approved by the House of Delegates in 1962. The Reference Committee recommends that the Committee on Medical Ethics be instructed to draw a bill, suitable, and in the proper form, for presentation to the Georgia General Assembly, but first submit such bill to the 1968 House of Delegates for approval, rejection or modification.

HOUSE OF DELEGATES ACTION—Adopted the Reference Committee recommendation approving the intent of the report of the Medical Ethics Committee and the additional recommendations made by the Reference Committee on this report.

Resolution No. 5

HOSPITAL-PHYSICIAN RELATIONS

JOHN W. TURNER, M.D.
For Fulton County Medical Society

WHEREAS, there is need for the American Medical Association to state its current policy position regarding hospital-physician relations; and

WHEREAS, Title XVIII of the Social Security Act recognizes the principle of the separation of professional and hospital costs for services rendered by hospital-based physicians; and

WHEREAS, this principle has been advocated by the American Medical Association, the American College of Radiology, the College of American Pathologists, and many regional organizations; and

WHEREAS, it is detrimental to the public interest and the medical profession when the services of hospital-based physicians are provided at a financial profit to the hospital; and

WHEREAS, it is necessary in the interest of the public and the medical profession that the services of all physicians, including hospital-based physicians, be clearly delineated, charged, and paid for as professional services;

THEREFORE BE IT RESOLVED, that the Medical Association of Georgia hereby adopts the following

statements of policy as its position with respect to hospital-physician relations:

1. Physicians and hospital authorities have the mutual responsibility to cooperate and work together effectively toward the constant goal of improving patient care and providing such care efficiently and at reasonable cost to the public.

2. Although final legal authority for granting, denying, terminating, or limiting hospital privileges may be vested in the governing board of the hospital, it is expected and necessary in the public interest that the governing board accept the determinations and judgment of the organized medical staff in the evaluation of professional competence, education, experience, ethical standards, and qualifications of all physicians, including hospital-based medical specialists.

3. In order to assure patients the services of professionally qualified ethical physicians, the contractual arrangements between hospital-based medical specialists should be subject to the condition that such physicians shall be admitted to the organized medical staff and retain membership in good standing in accordance with the same rules and procedures which apply to other members of the organized medical staff.

4. Hospital based medical specialists are entitled to reasonable charges for their services. Hospitals are entitled to recover their costs, determined in accordance with recognized cost accounting principles, from the operation of departments in which hospital-based medical specialists perform their services. The addition of a profit to such costs by the hospital results directly or indirectly in increases in the cost of medical services and is opposed as detrimental to the public interest and the medical profession.

5. Constituent and component medical societies have a clear mandate to use every legally acceptable means to promote ethical contractual and separate billing arrangements between hospital-based physicians and hospitals in order that the services of these physicians may be provided to patients at reasonable charges and without inflation through the addition of hidden profits for the hospital, and in order that the independence and professional integrity of the medical profession may be preserved.

6. It is unethical for a physician to enter into any salaried or other contractual arrangement whereby a hospital engages in the illegal corporate practice of medicine, and

BE IT FURTHER RESOLVED, that a resolution containing the above listed statements of policy be introduced at the 1967 Annual Convention meeting of the AMA House of Delegates by the MAG Delegates to the AMA House.

REFERENCE COMMITTEE RECOMMENDATION—Your Reference Committee recommends that Resolution No. 5 be amended to delete the comma and the word "and," and insert a period after the word "medicine" in part 6 under the first resolved, so that when amended the first resolved reads; "6. It is unethical for a physician to enter into any salaried or other contractual arrangement whereby a hospital engages in the illegal corporate practice of medicine." Your Committee recommends further the deletion of the last resolve in its entirety.

HOUSE OF DELEGATES ACTION—Vice Speaker Rogers then explained that the House had adopted the Resolution No. 5, Hospital Physician Relations as amended by the Reference Committee.

Resolution No. 12

PRACTICE OF ANESTHESIOLOGY BY UNLICENSED PHYSICIANS

F. William Dowda, M.D.
Fulton County Medical Society

WHEREAS, the American Medical Association, the American Society of Anesthesiologists and other organizations state that the practice of Anesthesiology is the practice of medicine; and

WHEREAS, the leading hospital administrators have publicly recognized the above fact in their publications; and

WHEREAS, the Medical Practice Act of the State of Georgia forbids the practice of medicine by unlicensed physicians,

THEREFORE BE IT RESOLVED, that the Medical Association of Georgia reaffirm that:

1. The practice of Anesthesiology is the practice of medicine.
2. The practice of Anesthesiology by unlicensed physician be stopped.

REFERENCE COMMITTEE RECOMMENDATION—The Committee recommends disapproval of Resolution No. 12 on the basis of insufficient information and a feeling on the part of the Committee that this resolution, as worded, might be subject to misinterpretation.

HOUSE OF DELEGATES ACTION—Vice Speaker Rogers recognized Joseph Mulherin, Augusta, and William Dowda, Atlanta, who discussed this resolution. On motion (Mulherin-Dowda) it was moved to approve the original resolution, and disapprove the Reference Committee recommendation. Speaker Rogers then recognized Frank Wilson, Atlanta; Luther Vinton, Decatur; Jack Raines, Columbus; William Moore, Atlanta; and William Dowda, Atlanta, all of whom discussed the motion. The question was called, and a vote was taken, and the motion was disapproved.

The House then adopted the Reference Committee recommendation in disapproving Resolution No. 12 as noted in the Reference Committee recommendation.

Supplemental Report of Council No. H

TITLE XIX—RECIPROCAL AND COOPERATIVE AGREEMENTS

Charles R. Andrews, Jr., M.D., *Chairman*

In consideration of question as to which Department of State government should administer the Title XIX program, the MAG Council submits the following Supplemental Report (in the form of a resolution) to the House of Delegates and urges its adoption:

WHEREAS, funds have been appropriated by the Legislature for the implementation in Georgia of Title XIX, P.L. 89-97, which will make available to certain indigent patients a program of comprehensive medical care, and

WHEREAS, the Department of Family and Children Services has been administering a program of Hospital and Nursing Home Care for this group of patients, and has always sought the advice and counsel of the Medical Association of Georgia in the medical aspect of these programs, and

WHEREAS, the Department of Family and Children Services has been designated by statute to provide med-

ical assistance to these individuals under Title XIX, and

WHEREAS, the Medical Association of Georgia firmly believes that physician direction of the medical aspects of the Title XIX program is essential to its successful implementation,

THEREFORE BE IT RESOLVED, that the Medical Association of Georgia continue its active cooperation with the Department of Family and Children Services in the formulation of State plans for medical assistance under Title XIX, and

BE IT FURTHER RESOLVED, that the Medical Association of Georgia believes that medical decisions should be made with the active participation of the Georgia Department of Public Health and the Medical Association of Georgia, and

BE IT FURTHER RESOLVED, that the Medical Association of Georgia calls for reciprocal and cooperative agreements between the Department of Family and Children Services and the Georgia Department of Public Health, as required by law, in the health service aspects of planning (determination of needs and priorities of services, and approval of payment for services), (usual and customary fees for physicians), the medical supervision of the delivery (certification of providers of service and certification for payment), and the evaluation of health care services.

Resolution No. 2

ADMINISTRATION OF TITLE XIX

ROBERT ANDERSON, M.D.
For Hall County Medical Society

WHEREAS, administration of this hospitalization, out-patient hospital care, extended care, home health, laboratory, and physicians services will require an extensive organization which is medically orientated.

WHEREAS, Title XIX has been designated by law to be administered by the Department of Family and Children Services; and

WHEREAS, this places a medical care program under control of a non-medical state agency; and

WHEREAS, MAG controls the appointment of the majority of members on the board which legally defines the policy of the State Department of Health, which Department does have prime responsibility for problems incident to health and medical care administration;

THEREFORE BE IT RESOLVED, that MAG take the position that Title XIX should be administered by the Georgia Department of Public Health.

REFERENCE COMMITTEE RECOMMENDATION—The Committee considered these two items together and recommends that Supplemental Report H be approved and amended by striking the period at the end of the last resolved, and inserting a comma and the word "and," and adding the following new last resolved: "BE IT FURTHER RESOLVED, that the Medical Association of Georgia adopt the position that the Title XIX Program would more properly be administered by the Georgia Department of Public Health and that MAG go on record in favor of said program being administered by the Georgia Department of Public Health."

The Committee then recommends the disapproval of Resolution No. 2, only because it feels this resolution has been properly expressed in Supplemental Report H as amended.

HOUSE OF DELEGATES ACTION—Vice Speaker Rogers recognized Joe Wilson, Atlanta, who discussed the reports considered by the Reference Committee, and now under consideration by the House. Dr. Wilson moved to amend the Reference Committee recommendation by deleting the last Reference Committee "resolved" and inserting in its place the following: "AND BE IT FURTHER RESOLVED, that the House of Delegates instruct Council to review the Title XIX Program at its September 23, 1967, meeting, and take appropriate action, including a called meeting of the House of Delegates if necessary, if it feels that the best interests of MAG are not safeguarded." This motion was duly seconded.

Speaker Rogers then recognized Jack Raines, Columbus; Lamar Peacock, Atlanta; L. Newton Turk, Atlanta; Robert Anderson, Gainesville; Linton Bishop, Atlanta; Thomas Lumsden, Clarkesville; John Mauldin, Atlanta; and J. Harold Harrison, Atlanta.

The question was called, and Vice Speaker Rogers called for a vote, and the amendment, as proposed by Dr. Wilson, was defeated.

The House then voted to adopt the Reference Committee report on Supplemental Report H of Council and Resolution No. 2. Vice Speaker Rogers then stated that the House action had approved Supplemental Report H as amended by the Reference Committee and had disapproved Resolution No. 2 as recommended by the Reference Committee for the reasons expressed in the Reference Committee report.

Talmadge Hospital Liaison

IRVING VICTOR, M.D., *Chairman*

Unfortunately, the Liaison Committee between the Medical Society and the Talmadge Hospital has not met since I was named chairman. This is due in part to a series of circumstances over which none of us had control. There has been a change in administration of the hospital and it was suggested by President O'Rear that this committee not meet until the new administrator had time to get himself completely oriented.

REFERENCE COMMITTEE RECOMMENDATION—The Committee recommends approval of this report and the further recommendation that the Talmadge Hospital Liaison Committee continue to meet in the future on their regular schedule.

HOUSE OF DELEGATES ACTION—Adopted the report of the Talmadge Hospital Liaison Committee as recommended by the Reference Committee with the additional recommendation made by the Reference Committee.

Separate Billing

DONALD R. ROONEY, M.D., *Chairman*

During the past year your Separate Billing Committee activities have been dominated by correspondence with all health insurance companies in Georgia, Officers of all hospital medical staffs, and all component Medical Societies in Georgia. Numerous inquires for information and help from physicians, hospital administrators, insurance companies, MAG and AMA have been promptly answered. All available information on separate billing was sent to the Georgia Insurance Commissioner, whose office has been helpful in implementing separate billing. A letter to the Georgia Hospital Association asking for their cooperation and help has neither been acknowledged or answered.

All members of this committee have been in touch during the year by mail and phone. It is gratifying to note that almost all Anesthesiologists in Georgia are billing separately from hospital charges for their professional services. As of July 1, 1966, the majority of hospital Radiologists were also doing likewise, and more have ended percentage contracts since then in order to send their own bills. More than half of the nation's Radiologists are now billing separately and Georgia

appears to be slightly higher than the national average.

Anesthesiologists and Radiologists are receiving insurance payments from medical insurance plans such as Blue Shield rather than from hospital service plans such as Blue Cross.

On a national basis 28 percent of physicians interpreting electrocardiographic recordings were submitting bills separately from the hospital. Discussions on this matter have been held at state meetings of the Georgia Society of Internal Medicine but a state progress report is not available at this time. Correspondence stating the AMA policy on billing for EKG's is appended to this report.

The President of the Georgia Society of Pathologists reports that discussions and study have been conducted at their state meetings concerning the need for their members to bill separately from hospitals. Two hospital Pathologists in Georgia have started billing separately but this committee has received no requests for information or help from Pathologists or Physiatrists as yet.

It is felt that successful instances of separate billing by various hospital based physicians will serve as a working example and strong stimulus to other physicians to initiate ethical billing practices.

SUGGESTIONS AND RECOMMENDATIONS

1. This committee should continue to function by dispensing information and aiding members in separating their professional fee from the hospital bill. Pathologists apparently are having more difficulty in this endeavor and all possible help should be offered.

2. Defer any action by MAG to introduce separate billing resolutions on a national level since a few states do not have laws against the corporate practice of medicine. Efforts can be better expended in correcting deficiencies in Georgia and in other states at the state level. AMA policy on this matter has already been clearly established in Section 6 of the *Judicial Council Opinions and Reports,* especially in Paragraphs 5 and 6, and reaffirmed on October 3, 1965.

3. Because of AMA and MAG policy it would seem appropriate, after allowing ample time for orderly transition to separate billing, to refer instances of unethical billing practices to the Medical Ethics Committee of the MAG for consideration.

Addendum to Report of Separate Billing Committee

DONALD R. ROONEY, M.D., *Chairman*

"American Medical Association

DEAR DOCTOR:

"I have your recent letter addressed to the Judicial Council as well as your letter addressed to the Council on Medical Service. You ask for advice regarding the ethical and legal status of a contract by cardiologists to read electrocardiograms for a hospital. The cardiologists read the electrocardiograms and bill the hospital once a month. The hospital in turn reimburses the cardiologists a standard fee for each E.K.G. read. You ask if there is anything unethical about this arrangement and if it is legal. You also ask regarding the qualifications of such an arrangement under Medicare.

"First and foremost I think that we would all agree that reading an E.K.G. is definitely a medical service. It is a service that may be performed only by a licensed physician. As a medical service it is a service that may be performed for a patient.

"No hospital can read an E.K.G. It may not legally employ licensed physicians to do for it that which it may not do itself. The practice of reading an E.K.G. for a hospital which bills for it is contrary to law and is contrary to policy of the American Medical Association.

"The position of the AMA has long been that:

> "A physician should not dispose of his professional attainments or services to any hospital, corporation or lay body by whatever name called or however organized under terms or conditions which permit the sale of the services of that physician by such agency for a fee.

"It is the policy of the Association which is in conformity with established legal principles that:

> "Hospital-based medical specialists are engaged in the practice of medicine. The fees for the services of such specialists should not be merged with hospital charges. The charges for the services of such specialists should be established, billed and collected by the medical specialist in the same manner as are the fees of other physicians.

"While conceivably a hospital could bill for hospital-based specialists' services under Public Law 89-97, this would be contrary to the policy of the Association. A report of the action of the AMA's House of Delegates at its meeting of June 26-30 is fully reported in the July 11 issue of *AMA News.*

"Inasmuch as this practice is of vital concern to the future of medicine, I could only recommend that you discuss these practices and proposals with the Medical Association of Georgia so that the best interest of medicine and the private practice of medicine is preserved.

Sincerely,
/s/ EDWIN J. HOLMAN, Director
Department of Medical Ethics
American Medical Association"

REFERENCE COMMITTEE RECOMMENDATION—In consideration of the report of the Committee the following additional information was received:

"A problem which has recently come to the attention of this Committee (Separate Billing) is the continuing practice of some of the larger hospitals to submit a single merged bill to the patient covering the radiologist's professional fee and the hospital service charge. Federal agencies and private health insurance carriers look to these larger hospitals for guidance. The failure of these physicians to itemize charges or send a separate bill acts as a deterrent for insurance companies to pay those physicians who have started ethical separate billing."

"MAG policy states that it is unethical for a physician to merge his professional fee with a hospital bill or to split fees with the hospital."

The Committee recommends approval of this report with commendation with the recommendation of the Committee being based in part on the additional information quoted above.

HOUSE OF DELEGATES ACTION—Adopted the report of the Separate Billing Committee and the Separate Billing Committee Addendum Report as recommended by the Reference Committee.

House of Delegates Election Study

J. W. Chambers, M.D., *Chairman*

The House of Delegates Election Study Committee has held preliminary discussions during the past few months. However, due to press of activities and the illness of one of the members, no final report is available at this time. A supplemental report will be submitted to the House at the time of its Annual Meeting in May.

Your Committee would like to apologize for the delay in the transmission of this report, but it feels that this is of sufficient import that such a report should not be hurried and that the Committee should have ample time for additional deliberations.

Supplemental Report of House of Delegates Election Study Committee No. F

MEDICAL ASSOCIATION OF GEORGIA ELECTIONS

J. W. Chambers, M.D., *Chairman*

Your committee has carefully studied the problem of elections of the Medical Association of Georgia during the last few months and tried to consider all factors involved and wishes to make the following report.

On studying the records, it becomes apparent that at least in recent years, less and less of the members of the Medical Association of Georgia are involved in the elections of its officers, delegates and alternate delegates. This is somewhat alarming when we find that at times only a small percentage of the membership actually votes in certain elections.

In studying the procedures used in the remainder of the state and constituent associations in this country, we find that with the exception of the Medical Association of Georgia only four others out of a total of 49 elect their officers by the membership in an annual meeting. The remaining 44 elect their officers, AMA delegates and alternate delegates by their own House of Delegates.

Therefore, your committee would like to make the following recommendations:

(1) That Councilors and Vice Councilors be elected, not nominated, by their own constituent societies with provision in the Constitution and Bylaws of the Medical Association of Georgia to provide for Councilor and Vice Councilor election in the event a constituent society defaults in its responsibility. We believe this gives local representation and control;

(2) That the House of Delegates, including the ex-officio members, elect the officers of this Association, the AMA delegates and the AMA alternate delegates, as could be provided by proper change in the Constitution and Bylaws; and that nominations be made at the first meeting of the House of Delegates and the election be an order of business at the last meeting of the House of Delegates at each Annual Session. We believe this would stimulate county societies to function more effectively in the choice of an election of their own delegates to the MAG House of Delegates. It would also provide a stimulus of interest in meetings of the county societies to discuss the possible candidates and if they saw fit, to instruct their own delegates prior to the annual meeting.

(3) In the event Recommendation (2) is not approved, we would recommend that an absentee or mail ballot be provided for as follows: (a) Nomination of the candidates be made in writing with the endorsement of their county medical society to the February or March meeting of the MAG Council; (b) The proposed ballot to be published in the April issue of the *Journal of the Medical Association of Georgia;* voting to be done by mail prior to the first meeting of the House of Delegates at the Annual Session; and such ballots to be counted at the same time as the ballots at the Annual Session are counted. Mail ballots could be obtained by written request from the MAG office or persons designated by the President to issue ballots; (c) In the event there was not a majority or there was a tie, a runoff election would be held by ballot of the House of Delegates in its last session of the annual meeting.

We realize Recommendation (3) is cumbersome and perhaps impractical in some ways but it at least would be more democratic than our present method. We also feel that Recommendation (2) would provide election by the most knowledgeable group in the Medical Association of Georgia.

Your chairman wishes to thank Dr. Fleming L. Jolley and Dr. George R. Dillinger for their services as members of this committee.

REFERENCE COMMITTEE RECOMMENDATION—The report of the House of Delegates Election Study Committee and Supplemental Report F covered the same material and were therefore considered together. The Committee heard many witnesses both for and against the proposals contained in these reports. Following lengthy discussion, the Committee found it was divided in its opinion. However, feeling that the matter of election of MAG officers is of such serious import that it merits the serious consideration of the full House, the Committee makes the following recommendation: Approval of part one (1) of the report relating to the election, rather than nomination of Councilors and Vice Councilors by the District Societies; approval of part two (2) (on which the Committee was divided); and disapproval of part three (3) relating to election of officers by mail ballot.

HOUSE OF DELEGATES ACTION—Vice Speaker Rogers recognized George Alexander, Forsyth; Jack Raines, Columbus; J. W. Chambers, LaGrange; Robert Wells, Atlanta; Linton Bishop, Atlanta; and William Dowda, Atlanta. On motion (Bishop-Dowda), it was moved to disapprove Section 2 of the Reference Committee report, which recommended approval of Part 2 of Supplemental Report F by the House of Delegates Elections Study Committee.

Vice Speaker Rogers called for a vote, and the motion was approved. Vice Speaker Rogers then explained that the matter before the House was approval of Item 1, as recommended by the Reference Committee and disapproval of Item 3, as recommended by the Reference Committee, and on motion duly made and seconded, the Reference Committee report on these Items 1 and 3 was approved. Again, to explain the complete action of the House, Vice Speaker Rogers stated that the House had approved adoption of Item 1; disapproval of Item 2 and disapproval of Item 3.

After the actions of the House on this matter, a motion to reconsider was presented, and the motion was disapproved.

Crippled Children

L. E. Dickey, M.D., *Chairman*

No problems have arisen requiring action of this committee during the current year.

REFERENCE COMMITTEE RECOMMENDATION—Your Reference Committee recommends approval of this report as written.

HOUSE OF DELEGATES ACTION—Approved the report of the Crippled Children Committee as recommended by the Reference Committee.

Public Service

ROBERT E. WELLS, M.D., *Chairman*

During the past year, the MAG Committee on Public Service has cooperated with the Alcohol and Tobacco Tax Division of the U. S. Department of the Treasury in promoting a public information program on the lethal and poisonous potential of moonshine whisky. This program has included news releases for radio, television and newspapers as well as the state-wide use of billboards and bumper stickers to promote the slogan "Moonshine Kills."

Additional activities of the Committee on Public Service include the formation and presentation of a program for the MAG County Society Officers Leadership Conference which this year was held on the weekend of February 4 and 5 at the Riviera Hotel in Atlanta.

REFERENCE COMMITTEE RECOMMENDATION—Your Committee recommends approval of this report with commendation for the work done by the Committee.

HOUSE OF DELEGATES ACTION—Adopted the report of the Public Service Committee as recommended by the Reference Committee.

Supplemental Report of Council No. A

OPEN DRUG FORMULARY IN DRUG VENDOR PROGRAM

CHARLES R. ANDREWS, JR., M.D., *Chairman*

At the September 1966 meeting of Council a special committee to study the Drug Vendor Program of the Department of Family and Children Services was appointed. Appointment of this Committee was made subsequent to a discussion of the Drug Vendor Program by Council in which Council neither approved nor disapproved the Drug Vendor Program, but did recognize that many of the principles involved in this program were not desirable. Accordingly the following Special Drug Vendor Program Study Committee was appointed and instructed to report its findings and recommendations back to Council at the December 1966 meeting:

Linton H. Bishop, M.D., Chairman (Atlanta)
Floyd Sanders, M.D. (Decatur)
Fleming Jolley, M.D. (Atlanta)

In the course of its study the Committee met with representatives from the Department of Family and Children Services, certain pharmaceutical companies, the Pharmaceutical Manufacturers Association, and the Georgia Pharmaceutical Association.

As a result of these meetings and subsequent Committee discussions it was concluded by the Drug Program Study Committee that a restrictive drug formulary* does not allow the welfare patients to receive the best medical care available, nor does it allow the physician to use the drug he knows will be best for a particular patient.

The Committee was aware of and appreciates the concern of the Department of Family and Children Services for the economic limitations which must be present in a program of this type. Accordingly, it recommended certain cost controlling factors in four areas regarded by the Committee to be sufficient to prevent unrealistic cost. These were: controls by the Department, the physician, the patient and by the druggist.

The Committee also reviewed similar programs from many States and found that controls in the areas mentioned above were meeting with varying degrees of success. The Committee concluded its report with the following two sentences:

(1) "The Committee feels that since the drug vendor plan now in use interferes with the welfare recipients receiving the best medical care, this plan should be changed." And

(2) "We recognize that some type control is necessary and suggest that some of the controls we have mentioned can allow the best medical care and allow adequate fiscal control."

The preceding report was made to the December meeting of Council and approved. Council directed that this report be sent to the Department of Family and Children Services and to solicit from the Department its opinion on the recommendations made by the Study Committee.

In a letter transmitting this report to the Director of the Department the following statement was made: "Our MAG Council believes that, in the interest of the best patient care, an open drug formulary be used in the treatment of all patients. This is thus the policy of our Association."

Responding to the MAG letter and Committee report, the Director of the Department of FACS did not state or imply that an open drug formulary could be adopted in line with MAG policy as set by Council. This fact was pointed out to Council at its March 1967 meeting.

Accordingly, Council voted to reaffirm policy, to wit, that it believes an open drug formulary in the treatment of all patients will result in the best medical care. At the same time, Council, aware of the fact that the availability of drugs selected by the physician as best for his patients, is basic to the delivery of the best medical care, voted to refer this matter to the MAG House of Delegates. Specifically, Council recommends that the House reaffirm Council established policy in favor of an open drug formulary as the same applies to the Drug Vendor Program of the Department of FACS.

REFERENCE COMMITTEE RECOMMENDATION—Following discussion of this report, your Committee concluded that an open drug formulary as opposed to the restrictive formulary used in the Drug Vendor Program of the Department of Family and Children Services would be in the best interest of patient care. Accordingly, it recommends approval of this report with commendation.

HOUSE OF DELEGATES ACTION—Adopted Supplemental Report A of Council, Open Drug Formulary in Drug Vendor Program as recommended by the Reference Committee.

Resolution No. 9

GaMPAC COMMENDATION

CHARLES B. WATKINS, M.D.
For Blue Ridge Medical Society

WHEREAS, the MAG House of Delegates has, in previous years, endorsed the Georgia Medical Political Action Committee, and

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** EDITORIAL NOTE: The restrieted formulary used in the Drug Vendor Program does not of itself limit what the physician may prescribe for a welfare patient. It does, however, limit what drugs the Department of FACS will pay for when the patient takes his prescription to a pharmacy.*

WHEREAS, GaMPAC has merited this endorsement through its demonstrated ability to be effective in the election process, and

WHEREAS, it has shown a pattern of steady growth, broadened its political influence and has consistently improved its political technique in a way that reflects favorably on the initial endorsement of this House and on those who have supported it throughout;

NOW THEREFORE BE IT RESOLVED, that this House of Delegates does enthusiastically reaffirm its previous endorsement of GaMPAC; commends it for the excellent job it has done, and urges all physicians and physicians' wives to become voluntary dues paying members to more completely insure its success in the future, and

BE IT FURTHER RESOLVED, that a copy of this resolution be mailed to each of the MAG component County Medical Societies with a request that it be read to the membership at an appropriate meeting of the Society.

REFERENCE COMMITTEE RECOMMENDATION—Your Reference Committee recommends approval of this resolution with commendation.

HOUSE OF DELEGATES ACTION—Adopted Resolution No. 9, GaMPAC Commendation as recommended by the Reference Committee.

Resolution No. 11

EYE EXAMINATIONS BY LICENSED PHYSICIANS

FLEMING JOLLEY, M.D.
Fulton County Medical Society

WHEREAS, non-medical eye examiners are not trained in medicine and surgery, nor are they prepared by training or permitted by licensure to use drugs, x-rays or laboratory aids in the pursuit of their limited practice, and

WHEREAS, the eye is an integral part of the central nervous system and frequently provides the initial manifestation of numerous systemic diseases, and

WHEREAS, only a trained doctor of medicine can diagnose and interpret medical findings resulting from an examination of the eye, and

WHEREAS, non-medical practitioners are qualified by training and licensure only to determine refractive errors and such an examination can in no way be equated with a complete and total eye examination, and

WHEREAS, patients relying on non-medical eye examiners are frequently under the impression that such examinations are medically complete, thus creating a false sense of security, and

WHEREAS, such said false sense of security will often cause a patient in need of treatment to delay seeking treatment resulting in irreparable damage to the eye, and

WHEREAS, legislation has been offered and will almost certainly be offered in the future, the effect of which would be to impede the unsuspecting patient from seeking competent diagnosis and prompt and proper treatment of conditions of the eye from a licensed doctor of medicine,

NOW THEREFORE BE IT RESOLVED, that the Medical Association of Georgia considers an eye examination by a licensed physician to be an integral and important part of any complete and comprehensive medical examination, and

BE IT FURTHER RESOLVED, that the Association does not consider an optometric examination equivalent in any way to a complete and comprehensive medical eye examination, and

BE IT FURTHER RESOLVED, that the Association is unalterably opposed to any legislation which seeks to have eye examinations by non-medical practitioners recognized as equivalent in any way to examinations made by licensed physicians.

REFERENCE COMMITTEE RECOMMENDATION—Your Committee, aware of the serious legislative problems encountered at the 1967 Session of the General Assembly in the field of eye care, recommends approval of this resolution with commendation.

HOUSE OF DELEGATES ACTION—Adopted Resolution No. 11, Eye Examination by Licensed Physicians as recommended by the Reference Committee.

It was moved by Reference Committee No. 4 Chairman Henry Bridges, Bainbridge, and duly seconded that the report of the Reference Committee be approved as amended, and it was so ordered.

At this time, Vice Speaker Harrison Rogers turned the gavel over to Speaker J. Frank Walker.

Report of Reference Committee No. 5

Charles White, M.D., Macon, Chairman

(The following reports as presented to this Reference Committee are printed in full with the Reference Committee's recommendation and the action pursuant to it taken by the House of Delegates.)

Reference Committee No. 5 met at 2:30 p.m., Stone Mountain Suite, Marriott Motor Hotel, Atlanta, on May 1, 1967. Members of the Committee present included: Charles White, Macon, Chairman; Z. V. Morgan, Decatur, Vice Chairman; William Moore, Atlanta, Secretary; Bert Malone, Brunswick; Fred Smith, Valdosta; and Carl Pittman, Jr., Tifton.

First District Councilor

CHARLES E. BOHLER, M.D., *Brooklet*

I have attended all regular and called meetings of Council since the last Annual Session.

I feel we of the First District have done a good job during the past year with respect to keeping our State and National elected representatives aware of our wishes and feelings regarding proposed or impending legislation.

I have met with several of the societies in my district during the past year and have attempted to keep them abreast of MAG activities and policies.

The First District meeting was held at the Holiday Inn in Statesboro, Georgia on March 29, 1967.

Counties and Secretaries	Members December 31, 1966 MAG Dues Paying Only	Members December 31, 1966 AMA Dues Paying Only	Members December 31, 1965 MAG Dues Paying Only	Members December 31, 1965 AMA Dues Paying Only
Bulloch-Candler-Evans				
Louis Griffin				
Claxton	16	15	14	14
Burke				
C. G. Green				
Waynesboro	9	5	8	5
Emanuel				
E. T. Strickland				

Swainsboro	9	8	9	8
Jenkins				
J. E. Hendley				
Millen	3	3	3	3
Laurens				
J. J. Kirkland				
Dublin	42	19	36	16
Screven				
J. C. Freeman				
Sylvania	5	5	5	5
Southeast Georgia				
Travis Nobles				
Lyons	27	18	28	20
Tri-County				
F. T. Robbins				
Hinesville	4	3	3	2
	115	76	106	73

REFERENCE COMMITTEE RECOMMENDATION—Your Reference Committee recommends approval of the report of the First District Councilor with commendation.

HOUSE OF DELEGATES ACTION—Adopted the report of the First District Medical Society Councilor as recommended by the Reference Committee.

Georgia Medical Society Councilor

T. A. Peterson, M.D., *Savannah*

Counties and Secretaries	Members December 31, 1966 MAG Dues Paying Only	Members December 31, 1966 AMA Dues Paying Only	Members December 31, 1965 MAG Dues Paying Only	Members December 31, 1965 AMA Dues Paying Only
Georgia Medical Society				
J. J. Holloman				
Savannah	160	143	158	140

REFERENCE COMMITTEE RECOMMENDATION—Your Reference Committee recommends approval of the report of the Georgia Medical Society Councilor with commendation.

HOUSE OF DELEGATES ACTION—Adopted the report of the Georgia Medical Society Councilor as recommended by the Reference Committee.

Georgia Medical Society Vice Councilor

John Kirk Train, M.D., *Savannah*

As Vice Councilor from the Georgia Medical Society to the Medical Association of Georgia, I attended almost all the Council meetings missing only those which interfered with my trips to the AMA meetings, bringing home from the Council meetings to the Georgia Medical Society the transactions of the Council. I have no great suggestions for the improvement of the order but as usual, the Society will be faced with many problems during the coming year.

REFERENCE COMMITTEE RECOMMENDATION—Your Reference Committee recommends approval of the report of the Georgia Medical Society Vice Councilor with commendation.

HOUSE OF DELEGATES ACTION—Adopted the report of the Second District Medical Society Councilor as recommended by the Reference Committee.

Second District Councilor

J. Daniel Bateman, M.D., *Albany*

It was my honor last year at the Spring meeting of the Second District to be elected Councilor following the resignation of Dr. W. Frank McKemie. Dr. McKemie had served the Second District well and it was with regret that his resignation was accepted.

It has been my pleasure to attend all regular and called meetings of the Council, except the December meeting which I missed because of illness.

The Second District had the second of its usual semi-annual meetings in October in Blakely. Unfortunately, the meeting was poorly attended in spite of a very interesting scientific session and a very delightful social. The Spring 1967 meeting is to be held in Albany.

The membership of the Second District has continued to grow in number with several new physicians locating in the area. A supplemental report on the membership of each County Society will be forwarded to MAG Headquarters.

At the suggestion of Council, "Deputy Councilors" were appointed in each of the County Medical Societies in the District. Brief reports of the Council meetings have been forwarded to these Deputies. It has not been necessary to call on these men for many functions but the idea is good and I feel it should be continued.

I would like to take this opportunity to thank Dr. Homer Lassiter for his assistance as Vice Councilor and to Dr. Turner Rentz, President of the Second District, and other officers of the Second District, for their cooperation in helping me in the duties of Councilor of this District.

Counties and Secretaries	Members December 31, 1966 MAG Dues Paying Only	Members December 31, 1966 AMA Dues Paying Only	Members December 31, 1965 MAG Dues Paying Only	Members December 31, 1965 AMA Dues Paying Only
Colquitt				
J. T. Flynn, Jr.				
Moultrie	15	14	17	16
Decatur-Seminole				
M. A. Ehrlich				
Bainbridge	15	11	15	12
Dougherty				
F. D. Guillebeau				
Albany	58	45	58	46
Grady				
W. J. Morton				
Cairo	5	5	5	5
Mitchell				
A. A. McNeill, Jr.				
Camilla	7	6	9	8
Southwest Georgia				
W. B. Reynolds, Jr.				
Edison	14	13	14	12
Thomas-Brooks				
Donald McKenzie				
Thomasville	44	38	42	39
Tift				
W. L. Bridges				
Tifton	18	13	18	13
Worth				
R. T. Morgan				
Sylvester	6	6	5	5
	182	151	183	156

REFERENCE COMMITTEE RECOMMENDATION—Your Reference Committee recommends approval of the report of the Second District Councilor with commendation.

HOUSE OF DELEGATES ACTION—Adopted the report of the Second District Medical Society Councilor as recommended by the Reference Committee.

Fulton County Councilors

LINTON H. BISHOP, M.D., *Atlanta*
FLEMING JOLLEY, M.D., *Atlanta*
HAROLD HARRISON, M.D., *Atlanta*

Fulton County has three councilors this year and each has been quite active in the Medical Association of Georgia. We have had excellent representation at the Council meetings. They have also reported to the Board of Trustees of the Fulton County Medical Society after each Council meeting trying to coordinate the activities of the local society with the state society. During the year, Dr. Jolley and Dr. Bishop were on a committee to study the Drug Vendor Program of the Welfare Department. The Committee reported to the Council that this program did not afford the indigent people of this state the best medical care and should be changed. Dr. Jolley has been active in traffic safety and has a report elsewhere in this annual report. The Fulton County Medical Review Committee has been active cooperating with the John Hancock Insurance Company and the form of this procedure seems to be working well.

During the coming year, the Fulton County Medical Society anticipates many opportunities and problems associated with the Economic Opportunities Program and with Title XIX in the metropolitan area. We plan to work closely with the Medical Association of Georgia and use the opportunities presented to give the people of the metropolitan community the best possible medical care.

Counties and Secretaries	Members December 31, 1966 MAG Dues Paying Only	Members December 31, 1966 AMA Dues Paying Only	Members December 31, 1965 MAG Dues Paying Only	Members December 31, 1965 AMA Dues Paying Only
Fulton				
F. W. Dowda				
Atlanta	1,071	880	1,070	877

REFERENCE COMMITTEE RECOMMENDATION—Your Reference Committee recommends approval of the report of the Fulton County Councilors with commendation.

HOUSE OF DELEGATES ACTION—Adopted the report of the Fulton County Medical Society Councilors as recommended by the Reference Committee.

First Vice-President

LAMAR B. PEACOCK, M.D., *Atlanta*

As First Vice-President, I have served on the Executive Committee during the past twelve months, participating and acting on all materials brought into that particular committee. Space does not permit all actions taken but these actions have been reported to the members of the Medical Association of Georgia, complete and detailed, month by month.

I have met with the Council of the Medical Association of Georgia and have been fortunate enough to participate in their decisions over the past twelve months. Meeting with such a fine group of physicians has been an honor and I may say that the present Council represents the members of this state with great dignity and intelligence.

Serving as Vice-President and as a member of the Education Committee of the Medical Association of Georgia, I attended very frequent meetings concerning the Heart, Stroke and Cancer bill with other members of the Association including two outstanding workers, Dr. Willis Hurst and Dr. J. Gordon Barrow. The Medical Association was able to apply and become the grantee for this bill in the State of Georgia. It is hoped that all physicians throughout the state will cooperate and make this program the outstanding one in the entire country. It offers educational opportunities to all physicians in many unique manners and in this way offers better medical care for all people of this area.

At the request of Governor Sanders, I was appointed to the State Board of Health in December, 1966. I feel sure this honor was tendered to a large degree because of my position as Vice-President of the Medical Association of Georgia. It is our hope to improve and further cooperation between the Board of Health and our Medical Association in order to give better health service to all people in our state.

I appreciate the honor of having served as Second and First Vice-Presidents of the Medical Association of Georgia. Our staff at Headquarters in Atlanta is excellent. I would also like to thank them personally for all of their assistance to me over the past two years.

REFERENCE COMMITTEE RECOMMENDATION—Your Reference Committee recommends approval of the report of the First Vice President with commendation.

HOUSE OF DELEGATES ACTION—Adopted the report of the First Vice President as recommended by the Reference Committee.

Second Vice-President

M. C. ADAIR, M.D., *Washington*

It has been a pleasure to serve on the Executive Committee. The amount of business transacted has been amazing. Seeing the inner workings of MAG has been a real revelation.

One concept to which I subscribe is that of the MAG making the effort to have MD's on the policy-making committees of each federal and state medical program. I feel that this is a step in the right direction. None of us likes the interposition of third parties in the physician-patient relationship, but when it becomes the law, then we must do our best to help guide the policies of these third parties.

REFERENCE COMMITTEE RECOMMENDATION—Your Reference Committee recommends approval of the report of the Second Vice President with commendation, and further recommends that the Medical Association of Georgia make every effort to have physicians on all federal and state policy-making committees referable to medical programs, and that these physicians be selected on the basis of training, experience and interest in the field of medicine being considered.

HOUSE OF DELEGATES ACTION—Adopted the report of the Second Vice President as recommended by the Reference Committee with the additional recommendation made by the Reference Committee.

Speaker, House of Delegates

J. FRANK WALKER, M.D., *Atlanta*

The 1966 House of Delegates of the Medical Association of Georgia, meeting in Columbus, Georgia, took 71 separate actions following their introduction, Reference Committee consideration, debate and approval by the House. These actions were published in the Proceedings of the House, *Journal of the Medical Association of Georgia,* June issue 1966. All actions were referred to the appropriate body with the Association for implementation.

Your Speaker and Vice Speaker were privileged to follow through on these actions to see that they were

completed according to the intent of the House. As of this date, all actions have been completed or are well along in the process of completion or continuing action by the Council, its Executive Committee or by appropriate MAG Committees. In the interest of carrying out the policies set by the House, your Speakers carefully checked the progress on the items during the year to follow through on their implementation.

During the past several years, we have attempted to "streamline" the procedures for the Annual Session of the House of Delegates. After we closed the time-gap between the two meetings of the House of Delegates, we noted an increase in attendance at the all-important Second "Voting" Session of the House. We have reached the maximum time-gap closure between Sessions of the House. It is hoped that we will have additional "stay-over" attendance this year at the Second "Voting" Session. Even yet, attendance at the Second Session falls below that of the First Session.

An additional innovation this year will be the provision of full-time staff assistance for each Reference Committee. Chairmen and Secretaries of Reference Committees should particularly welcome this additional help to use as they see fit.

Again, House Reference Committees will meet in separate rooms, rather than in areas of the same meeting room as we tried a couple of years ago. However, at this meeting, the Reference Committee meeting rooms will be immediately adjacent to one another. This should expedite work of the Reference Committees and be of great convenience to those Officers and members who must and should appear before the Reference Committees.

Every effort will be made to divide the work of the Reference Committees equally, although this is often impossible because of the nature of the topics involved.

Your Speakers, in your behalf, have attended the meetings of the MAG Council. In addition, the Speaker represents your interests, the interests of the Delegates and those whom they represent, at meetings of the Executive Committee of Council.

Before the 1967 Annual Session, your Speakers will have attended a regional meeting in New Orleans of State Association's Speakers of the Houses.

Your Speaker and Vice Speaker attended, again, a Speakers meeting in Chicago at the time of the AMA Annual Session in June 1966.

To Dr. Harrison Rogers, I again extend my appreciation for his faithful and able assistance as Vice Speaker.

REFERENCE COMMITTEE RECOMMENDATION—Your Reference Committee recommends approval of the report of the Speaker of the House with commendation, and speaking for the Reference Committee as a whole, would like to recognize changes in the mechanics of committee meetings and reports and would like to thank the Speaker of the House, and all those responsible for the time-saving innovations.

HOUSE OF DELEGATES ACTION—Adopted the report of the Speaker of the House with the additional commentary made by the Reference Committee.

AMA Delegates

J. W. Chambers, M.D., *LaGrange, Chairman*
J. Frank Walker, M.D., *Atlanta*
Preston D. Ellington, M.D., *Augusta*
Henry H. Tift, *Macon*

The delegation from the Medical Association of Georgia to the House of Delegates of the American Medical Association has attempted to represent you, its membership, again this past year with diligence and dignity. I am happy to report that at each meeting of the AMA House of Delegates, both the Annual Meeting and the Clinical Meeting, a full delegation was present, and adequately covered each Reference Committee in the House of Delegates in the American Medical Association for the Medical Association of Georgia. Our Legislative Breakfasts were well attended. The discussions were well attended, spirited, and adequate for the information of all those present.

We have attempted to carry out each mandate and instruction given us by this House of Delegates. The Rooney Resolution of this House, after due consideration by your Delegation and adequate consultation by the Legal Counsel of the Medical Association of Georgia and consultation with the Legal Counsel of the AMA, was not introduced into the AMA House of Delegates. This was not done because of potential legal complications and legal action potentially being taken against the Medical Association of Georgia and the AMA. A further report will be submitted to the Reference Committee for consideration. It would also be of interest to the membership of the Medical Association of Georgia House of Delegates that the Resolution #104 of the AMA House of Delegates, which was not implemented by the Board of Trustees pending further study, was rescinded by the AMA House of Delegates at the Clinical Session in Las Vegas. This also was supported by your delegation on advice of our own Legal Counsel of the Medical Association of Georgia as well as the Legal Counsel of the American Medical Association.

Much of the business of the House of Delegates of the American Medical Association still centered around various aspects of the so-called Medicare Law. This evoked considerable discussion in both the Annual as well as the Clinical Sessions just passed.

Two items were submitted to the House during the Clinical Session in Las Vegas which I believe this House will subsequently be interested in following. The first of these was the Report of the Citizen's Commission on Graduate Medical Education (the so-called Millis Report). Discussions on this report will come up in detail at the Annual Meeting in 1967. In addition to this, the Report of the Ad Hoc Committee on Education for Family Practice of the Council on Medical Education of the American Medical Association was also submitted. This report also will come up for complete discussion at the Annual Meeting of the AMA House of Delegates in 1967. We shall try to keep you adequately informed in regards to these discussions.

Finally, as Chairman I should like to thank each member of our delegation, both Delegates, Alternate Delegates, and interested members for their efforts and cooperation at each meeting for this past year. As I have said before, this adds materially to our ability to adequately represent the Medical Association of Georgia in the American Medical Association House of Delegates. I regretfully acknowledge the retirement of our Senior Delegate, Dr. Henry H. Tift, as of December 31, 1966. We shall sorely miss the talents and effort of Dr. Tift who has distinguished himself in the American Medical Association House of Delegates by his talents and his dignified service. Thank you from each of us for the privilege of serving you.

REFERENCE COMMITTEE RECOMMENDATION—Your Reference Committee recommends approval of the report of the AMA Delegates with commendation and further recommends that the Medical Association of Georgia recognize Dr. Henry Tift, Macon, for his work and devotion as a Delegate to the American Medical Association, and that a copy of this action be sent to Dr. Tift in appreciation.

This Committee further recommends that the Medical Association of Georgia make an effort to increase the number of MAG members in AMA.

The Committee recommends that other informative programs in the State, similar to the ones presented in Bibb and Tift counties, be given at the county or district levels to bring out advantages of membership in AMA. We suggest that the MAG Field Representative investigate and pursue this idea.

HOUSE OF DELEGATES ACTION—Adopted the report of the AMA Delegates with the additional recommendations made by the Reference Committee concerning recognition for Dr. Henry Tift; increase of MAG membership in AMA, etc.

Alternate Delegate

T. A. Sappington, M.D., *Thomaston*

I attended both sessions of the AMA during the past year, each meeting of the House of Delegates, as well as all Reference Committee meetings as possible. I assisted the delegates to the best of my ability.

I wish to thank the members of the Medical Association of Georgia for giving me the opportunity to represent them at AMA meetings as an Alternate Delegate in 1966. It was both a pleasure and an education.

Alternate Delegate

John Kirk Train, M.D., *Savannah*

As Alternate Delegate from the MAG to the AMA, I attended both the Annual Session in Chicago in June of 1966 and the Scientific Session in Las Vegas in November 1966. Both were highly instructive and interesting and I did my part as best I could in entering the discussions of the MAG group concerning the affairs under consideration.

REFERENCE COMMITTEE RECOMMENDATION—Your Reference Committee recommends approval of the report of the AMA Alternate Delegates with commendation.

HOUSE OF DELEGATES ACTION—Adopted the report of the AMA Alternate Delegates as recommended by the Reference Committee.

Medicine and Religion

Jasper T. Hogan, M.D., *Chairman*

The purpose of the Medical Association of Georgia Committee on Medicine and Religion is to establish a valuable working relationship between the doctor and clergyman for better total patient care.

The MAG Committee on Medicine and Religion met January 19, 1967, in Atlanta. All committee members were present, with the exception of two, also, Mr. Robert Coons, of the AMA Department of Medicine and Religion, was in attendance.

Dr. Jasper T. Hogan, Macon, Chairman, attended a Workshop for Medicine and Religion State Committee Chairmen, in Chicago during the month of February, 1967. This was the first national meeting held for state committee chairmen of Medicine and Religion.

Ideas and/or accomplishments discussed at the January meeting held in Atlanta were: (1) The possibility of a Medicine and Religion exhibit booth at the 113th Annual Session of MAG to be held in Atlanta. This booth is supplied by AMA and would be staffed by Mr. Robert Coons; (2) The appointment of a representative to the MAG Committee on Medicine and Religion from each county medical society. An initial letter was sent out, with 47 out of 79 county medical societies responded and naming a representative to the MAG Committee on Medicine and Religion. A second letter requested further information, i.e., how active was their county medical society Medicine and Religion program, and were chairman of local committee and representative to the MAG Committee one and the same etc.; (3) A proposal that a team made up of a medical student and a seminary student be retained to contact personally each representative to the MAG Committee on Medicine and Religion.

Future plans include (1) Individual Medicine and Religion program presentations for each county medical society as one of their monthly meetings; (2) Workshop meeting for all Medicine and Religion representatives and members of committees; (3) One large yearly meeting, possibly in 1968, which would encompass a number of different projects: (a) Film; (b) Workshops; (c) Panel discussions; and (d) Noted guest speaker.

REFERENCE COMMITTEE RECOMMENDATION—Your Reference Committee recommends approval of the report of the Committee on Medicine and Religion with commendation.

HOUSE OF DELEGATES ACTION—Adopted the report of the Medicine and Religion Committee as recommended by the Reference Committee.

Voluntary Health Agencies

Paul T. Scoggins, M.D., *Chairman*

The Committee on Volunteer Health Agencies has not been called as we are awaiting a report and meeting agenda of the American Medical Association committee. The desire is being investigated to combine the drives and agencies so as to avoid overlapping.

REFERENCE COMMITTEE RECOMMENDATION—Your Reference Committee recommends approval of the report of the Committee on Voluntary Health Agencies with commendation.

HOUSE OF DELEGATES ACTION—Adopted the report of the Committee on Voluntary Health Agencies as recommended by the Reference Committee.

Report of the Journal

Edgar Woody, Jr., M.D., *Editor*

The 1966-67 report of the *Journal of the Medical Association of Georgia* is submitted herewith.

PERSONNEL

No changes in the personnel working with the *Journal* have taken place during the past year. Our Managing Editor with each succeeding year is doing an increasingly effective job in handling the complex technical details of putting the *Journal* together and getting it out on time. The Contributing Editors have on numerous occasions during the past year solicited and obtained excellent material for use in the *Journal*. They have also been of great help in reviewing papers submitted for publication. Our Headquarters Office Staff as usual

have been instrumental in assuring a steady flow of editorial material relating to the numerous and important activities of the Association. Mr. Wallace, our new Field Secretary, has been a valuable addition to our Headquarters force.

PRINTING

The Ovid Bell Press, Inc., of Fulton, Missouri, continues to fill our printing needs very effectively. Through the efforts of the State Medical Journal Advertising Bureau in Chicago, definite plans are now being made for the printing of all state journal color advertising by a single press. This will result in considerable savings and make our color advertising rates competitive with the national journals. As any reader of medical periodicals is aware, color advertising is no longer a luxury but an item that many advertisers insist upon.

COST CONTROL

By the continued balancing of editorial copy with advertising volume we have been able to keep within our projected budget. Since our advertising has increased considerably during the past year we have been able to justify an increase in the volume of scientific papers and association activity reports. We believe this increased volume plus the attractive color advertising now being featured has given us a more attractive *Journal.*

CREDITS

Our Publications Committee continues to give us guidance in matters of policy. They have been most helpful and cooperative when their counsel has been sought. The immediate past president is to be commended for the contribution of his excellent monthly President's Page. The editors and contributors of our specialty pages have continued their fine cooperation in supplying good material. Their efforts have done much to enhance the desirability of the *Journal.*

REFERENCE COMMITTEE RECOMMENDATION—Your Reference Committee approves the report of the *Journal* with commendation, and recognizes the attractiveness, improved scientific contents, and financial stability of the *Journal* as evidences of the able leadership of our Editor and his staff.

HOUSE OF DELEGATES ACTION—Adopted the report of the *Journal* as recommended by the Reference Committee.

Mental Health

JOSEPH S. SKOBBA, M.D., *Chairman*

There has been no formal meeting of this committee at the time of the preparation of this report. A meeting is scheduled for March or April to be held at the Milledgeville State Hospital.

The chairman of the committee has attended the ground breaking for the Mental Retardation Center and the ground breaking for the Regional Hospital in the Atlanta area.

The chairman also attended the Governor's Conference on Mental Retardation.

In his capacity as a member of the Advisory Committee to the Director of Division of Mental Health to the State Board of Health, the chairman has attended monthly meetings at which time matters pertaining to the development of the mental health program have been discussed.

Dr. Sidney Isenberg, a member of the committee, has attended the AMA Conference on Mental Health in Chicago and has submitted the report of his experience to the chairman of the committee.

All the proposed mental health legislation has been approved by the Legislative Committee of MAG and is being supported by that committee.

At this time there are no recommendations for consideration by the House.

REFERENCE COMMITTEE RECOMMENDATION—Your Reference Committee recommends approval of the report of the Committee on Mental Health with commendation.

HOUSE OF DELEGATES ACTION—Adopted the report of the Mental Health Committee as recommended by the Reference Committee.

Late Report No. 1

AMA ALTERNATE DELEGATE

JOHN S. ATWATER, *Atlanta*

It has been a privilege for me to have had the opportunity to represent the members of the Medical Association of Georgia as Alternate Delegate to the 1966 meeting of the American Medical Association.

It was my pleasure to attend the annual session of the American Medical Association House of Delegates in Chicago, as well as the Clinical Session in Las Vegas last fall. All meetings of the House of Delegates were attended and your Alternate Delegate participated actively in discussions in the various reference committees to which he was assigned.

As in the past it is my feeling that there must be a strong liaison maintained between the component state medical organizations and the American Medical Association.

It is a privilege and an honor for your Alternate Delegate to succeed Doctor Henry H. Tift of Macon as Delegate. I should like to take this opportunity to commend to the Association the magnificent effort Doctor Tift has made on behalf of the Medical Association of Georgia. He has earned the respect of the members of the House of Delegates of the American Medical Association and it is with great humility that I succeed him.

As your new Delegate, I shall sit on the Reference Committee for Insurance and Medical Services at the June 1967 meeting to be held in Atlantic City.

Once again let me express my hope that there will continue to be fine cooperation between the Medical Association of Georgia and the American Medical Association.

REFERENCE COMMITTEE RECOMMENDATION—Your Reference Committee approves the report of the AMA Alternate Delegate with commendation.

HOUSE OF DELEGATES ACTION—Adopted Late Report 1, AMA Alternate Delegate as recommended by the Reference Committee.

Resolution No. 6

CENTRAL BILLING SYSTEM

ALBERT FREGOSI, M.D.
For DeKalb County Medical Society

WHEREAS, the system of collecting dues in Georgia for the various echelons of medical organization is such that bill statements are printed by the Headquarters Office, mailed in bulk to County Medical Society Secre-

taries who in turn must enter the amount of their particular County Society and District Society (where applicable) dues on the statement and then mail them out to the members of their respective Societies, and

WHEREAS, the separate actions required of both the Headquarters Office and the elected Secretaries of the County Medical Societies is an area in which greater efficiency may be achieved through a more streamlined and expeditious procedure, and

WHEREAS, the advent of the computer and the availability of computer service organizations suggest the possibility of a more efficient operation through centralized billing from the Headquarters Office direct to the individual physicians with rebates from MAG to the County Medical Societies for their portion of the total dues collected, and

WHEREAS, such central billing would relieve the County Medical Society of the burden and expense of billing and bookkeeping, thus permitting the Societies to divert a greater portion of their time and effort to more appropriate concerns of the Society, and

WHEREAS, the present system of billing is provided for in Chapter VIII, Section 3 of the MAG Bylaws and any changes in such billing procedure would require a change in the Bylaws, and

WHEREAS, it is the obligation of the House of Delegates, Council and the Headquarters Office to constantly search for more efficient methods in which to handle the business of the Association;

NOW THEREFORE BE IT RESOLVED, that the MAG House of Delegates direct the Council to appoint a study committee for the purpose of determining the feasibility and the desirability (or lack of same) of conversion to a central billing system, and

BE IT FURTHER RESOLVED, that such committee be directed to report its findings and recommendations to the Council at the September 1967 meeting to allow Council time to evaluate such proposal and should it approve such plan refer the matter in turn to the MAG Committee on Constitution and Bylaws for drafting of appropriate changes in the Bylaws and subsequent referral back to the 1968 meeting of the House of Delegates for approval or rejection.

REFERENCE COMMITTEE RECOMMENDATION—Your Reference Committee recommends approval of the report of Resolution No. 6, Central Billing Committee as read.

HOUSE OF DELEGATES ACTION—Adopted Resolution No. 6, Central Billing System as recommended by the Reference Committee.

It was moved by Reference Committee No. 5 Chairman, Charles White, Macon, and duly seconded that the report of the Reference Committee be approved as a whole, and it was so ordered.

Speaker Walker then called for Unfinished Business, and there being none, Dr. Walker opened the floor for New Business. There being no New Business, Speaker Walker thanked each and every member of the Reference Committees for their diligent work and the entire MAG Office Staff for their assistance, and entertained a motion for the adjournment of the Second Session of the MAG House of Delegates meeting in conjunction with the 113th Annual Session of the Association. On motion duly made and seconded, the House was adjourned at 12:15 p.m.

MAG GENERAL BUSINESS SESSION (First Session)

113th ANNUAL SESSION OF THE MEDICAL ASSOCIATION OF GEORGIA

SUNDAY, APRIL 30, 1967

THE FIRST GENERAL BUSINESS SESSION of the 113th Annual Session of the Medical Association of Georgia was called to order by President Walter Brown, Savannah, at 5:05 p.m., in the South Ballroom, Marriott Motor Hotel, Atlanta, Georgia, on April 30, 1967.

Dr. Brown stated that the purpose of the opening General Business Session concerned the nominations of MAG Officers, Councilors and Vice Councilors, MAG Delegates and Alternate Delegates to the American Medical Association and nominations for the MAG "General Practitioner of the Year" Award.

Tellers Committee

At this time, President Brown appointed the MAG Tellers Committee to take charge of the official MAG Ballot Box as follows: George Alexander, Forsyth, Chairman; J. G. McDaniel, Atlanta; and Thomas Goodwin, Augusta.

Dr. Brown announced that the hours for voting on the nominations made at this session were as follows: April 30—5:30 p.m. to 6:30 p.m.; May 1—9:00 a.m. to 6:00 p.m.; at which time the Ballot Box will close, so that election results may be tabulated and announced at the Tuesday morning, May 2 final Business Session.

Nominations

President Brown called for nominations from the floor for the Association's Officers and the following nominations were made:

This pain is getting on my nerves.

Patients in pain often experience concomitant anxiety and tension, which may add to the burden of pain.

For such patients, you may want to prescribe a preparation that offers more than simple analgesia.

A good choice is often EQUAGESIC® (meprobamate and ethoheptazine citrate with aspirin). It helps relieve pain. And anxiety. And skeletal muscle spasm as related to pain or anxiety and tension.

Equagesic® TABLETS

(meprobamate and ethoheptazine citrate with aspirin)

Wyeth®

Precautions: Keep out of reach of children. Carefully supervise dose and amounts prescribed, especially for patients prone to overdose themselves. Excessive prolonged use of meprobamate may result in dependence or habituation in susceptible persons—as ex-addicts, alcoholics, severe psychoneurotics. Withdraw gradually after prolonged high dosage to avoid possibly severe withdrawal reactions including epileptiform seizures. Warn patients of possible reduced alcohol tolerance. If drowsiness, ataxia or visual disturbances occur, reduce dose. If symptoms persist, caution patients against operating machinery or driving. Give cautiously to patients with suicidal tendencies. Treat attempted suicide with immediate gastric lavage and appropriate supportive therapy.

Side Effects: Ethoheptazine and aspirin may occasionally cause nausea, vomiting, epigastric distress, and rarely dizziness and CNS depression. Overdosage may result in salicylate intoxication. Meprobamate rarely causes allergic or idiosyncratic reactions. These reactions, sometimes severe, can develop in patients receiving only 1 to 4 doses who have had no previous contact with meprobamate. Mild reactions are characterized by urticarial or erythematous maculopapular rash. Acute nonthrombocytopenic purpura with petechiae, ecchymoses, peripheral edema and fever have been reported. Meprobamate should be stopped and not reinstituted. Severe reactions, observed very rarely, include angioedema, bronchial spasms, fever, fainting spells, hypotensive crises (1 fatal case), anaphylaxis, stomatitis and proctitis (1 case) and hyperthermia. A few cases of leukopenia, usually transient, have been reported following prolonged dosage. Rarely, cases of aplastic anemia (1 fatal case), thrombocytopenic purpura, agranulocytosis, and hemolytic anemia have been reported; almost always, in the presence of known toxic agents.

Contraindications: History of sensitivity or severe intolerance to aspirin or meprobamate.

Composition: 150 mg. meprobamate, 75 mg. ethoheptazine citrate and 250 mg. aspirin per tablet.

Wyeth Laboratories Philadelphia, Pa.

COMMITTEE ON MATERNAL AND INFANT WELFARE

There were 94,336 live births in the State of Georgia during the year 1965. A total of 49 women died due to complications resulting from these deliveries. One task of this Committee has been to study in detail each of these maternal deaths and to determine how any or all of these might have been prevented. Let me hasten to add that these studies are performed without the knowledge of where the patient was delivered or by whom. We are interested only in the "quality of care" administered.

Analysis and Suggestion

In order to analyze these cases, questionnaires are sent to all responsible parties with all names and places excluded. These are carefully summarized and are presented one by one to the Committee for analysis and suggestions. These analyses and suggestions are then forwarded to the physician and/or midwife concerned in the hope that by so doing, future tragedies may be circumvented and obstetrical care thereby improved in this State.

I am certain many of you would like to know if we are making any progress in the "quality of maternal care" in Georgia. The answer is an unequivocal, Yes! For example, 49 deaths in 94,336 deliveries were reported in 1965 in Georgia, giving us a maternal death rate of 5.2 per 10,000 live births. In 1959 the death rate was 8.9 per 10,000 live births. This is laudable improvement. This rate has remained fairly constant during the past three years, however, which is not so laudable.

When we compare our figures with that of the country as a whole, we find a great deal of room for improvement. For example, in the United States as a whole in 1965, the maternal death rate was approximately 3.0 per 10,000 live births as compared with our rate of 5.2 per 10,000 live births. By way of further comparison, in 1963 Georgia rated 41st in rate of maternal deaths out of the 50 States and the District of Columbia.

The "big three" causes of obstetrical deaths in Georgia are: 1. Hemorrhage, 2. Toxemia, 3. Sepsis, in that order. This is somewhat of a change, as toxemia led the list for many years. Most of these deaths were, we think, preventable. Of those deaths due to hemorrhage, seven were directly due to ectopic pregnancy. It is also of interest that 18 of the maternal deaths were in the group of patients who had already had six or more pregnancies, indicating that we in this State are not preventing pregnancy in the "grand multipara" as we should. In this connection I would like to bring to your attention that we have a new sterilization law which permits sterilization in the adult if requested by husband and wife.

I am pleased to tell you that in 1965 there were only 6,686 live births permitted in the State without a medical attendant. This is 10% less than in 1964, a distinct improvement. Several communities and hospitals in the State have developed a plan whereby obstetrical delivery by a physician is performed in a hospital for all low income, high risk obstetrical patients. These plans have been accomplished through diligent effort and close cooperation of the local physicians, hospitals, Federal Government and health departments of the communities involved. It is urged that similar plans be considered by all local medical authorities and communities in the State. Those plans that have been successful are those in which local physicians have taken the initiative and leadership. It is our sincere hope that in the not too distant future *all* deliveries in this State will be performed in a well-equipped hospital and under the care of a competent physician.

Foetal Morbidity and Mortality

This Committee has begun to direct its attention in recent months not alone to maternal mortality but also to foetal morbidity and mortality, for Georgia has not made the progress in recent years in foetal mortality and morbidity as it has in maternal mortality. Georgia was 41st in maternal mortality of the 50 States, but 44th in perinatal mortality in 1963.

Factors affecting those high reproductive casualties include: 1. Georgia's high and rising premature birth rate; 2. Increasing rate of illegitimate births in the State; 3. Increasing teenage birth rates; 4. Deliveries by untrained or poorly trained midwives.

Because this Committee now believes that foetal mortality and morbidity should receive a high priority of attention, it has been subdivided into two parts: A. Sub-committee on Maternal Mortality; B. Subcommittee on Foetal Mortality and Morbidity.

As a consequence of this new arrangement, it has been necessary to increase the size of the group and to add pediatricians and others to the Committee. This Sub-committee on Foetal Mortality and Morbidity will (1) study the problem in the State in detail; (2) try to have formed a "perinatal Mortality committee" for every hospital in the State; and (3) develop communications between local, state and national committees.

In conclusion may we state that the quality of reproductive care in Georgia both needs and deserves top priority in the thinking of the health profession in Georgia. The reproductive process is the key to the mental and physical destiny of the people of the State. We must add the foetus to our thinking, analyses and planning for Georgia's future health needs. Your Committee dedicates itself to assist in the performance of this task.

Eugene L. Griffin, M.D., Chairman
MAG Committee on Maternal and Infant Welfare

"The triumph of evil requires only that good men do nothing."

Edmund Burke (1729-1797)

SUPPORT

GAMPAC

THE ASSOCIATION

DEATHS

Grover Cleveland Cole, Dallas, died January 18, 1967, in Kennestone Hospital at the age of 79.

Following his graduation from Atlanta Medical College, later known as Emory University, in 1912, he practiced medicine in Atlanta for 35 years.

Twenty years ago he was stricken with multiple sclerosis, a disease that ended his medical career. He returned to Dallas and was a resident of Route 4, until he was confined to Paulding Nursing Unit a year and a half ago.

Despite his infirmity, Dr. Cole kept abreast of medicine. He was an inspiration not only to members of his profession but to a host of friends as well.

He was a member of the Fulton County Medical Association, a Mason and a Shriner. He was a member of White Oak Springs Baptist Church for 60 years.

Survivors include a sister, Mrs. Vonnie Wilson, of Dallas; three brothers, J. W. Cole, of Atlanta, H. G. Cole, of Sebring, Florida, and C. R. Cole, of Dallas; and several nieces and nephews.

SOCIETIES

The **Southwest Georgia Medical Society** met at Blakely recently. Sam W. Windham, M.D., of Dothan, Alabama, presented the scientific program. His topic was "Surgery of the Upper Abdomen, with Particular Reference to the Gall Bladder and Complications."

PERSONALS

First District

Robert S. Robinson, Metter, has been named to the Candler County Board of Education to replace a member who has resigned. Dr. Robinson will serve as Chairman of the Board.

Thomas J. Yeh, presently associated with the Medical College of Georgia, Augusta, has been named Director of Surgical Education at Memorial Hospital, Savannah.

Dr. Yeh, a native of Taiwan, is 36. A naturalized U.S. citizen, he served his internship at St. Benedict's Hospital in Ogden, Utah, his surgical residency at the Louisville (Ky.) General Hospital and his residency in thoracic surgery at the Royal Edward Chest Hospital, McGill University, Montreal, Canada, and at the Medical College of Georgia.

At Memorial Dr. Yeh will be in charge of the surgical training program, and the surgical residency program and will also do research.

William W. Osborne has been chosen as Chief-elect of the Candler Hospital medical and dental staff, Savannah. **J. Randall Winburn** has succeeded **Harry E. Rollings** as Chief of Staff.

Other officers named at the annual staff meeting are **Joseph A. Mulherin,** secretary, and **Jeff J. Holloman,** treasurer.

Department chiefs are **Julian K. Quattlebaum, Jr.,** surgery; **F. Debele Maner,** medicine; **W. G. Sutlive,** obstetrics and gynecology; **Dearing A. Nash,** general practice; **F. P. Bousquet, Jr.,** eye, ear, nose, and throat; **Richard Schley,** pediatrics; **Alexander Paderewski,** general; **Joseph McCormick,** pathology, and **David Robinson,** radiology.

Committee chairmen are **William H. Lippitt,** medical records; **Robert Carter,** infections control; **J. K. Quattlebaum, Jr.,** utilization review; **Thomas R. Freeman,** intensive care; **Harvey V. Morgan,** program; **L. M. Freedman,** by-laws; **Leonard Rabhan,** pharmacy; **Joseph Mulherin,** inhalation therapy; **J. Moultrie Lee,** emergency and trauma, and **Harry Portman,** credentials.

Fourth District

Paul Fitzpatrick, a Forest Park Rotarian, helped out the Forest Park Rotary Club in a short notice substitute program and talked off the cuff to the Rotarians at their regularly scheduled luncheon meeting January 11, 1967. Dr. Fitzpatrick spoke on the significance of high blood pressure and its relation to the heart's proper functioning.

Fifth District

Brigitte B. Nahmias of Atlanta has been chosen new director of the Albert Steiner Memorial Clinic at St. Joseph Hospital. She succeeds **Lester Rumble, Jr.,** who was head of the emphysema clinic since its inception in 1961.

Bruce Logue was the recent guest of the Jacksonville Society of Internists in Jacksonville, Florida. He conducted a Round Table Discussion and gave the following talks: "Recent Advances in Pericardial Disease," and "Subtle Signs of Left Heart Failure."

Robert M. Fine, Decatur, was recently elected President of the Atlanta Dermatological Association. **Paul J. Cronce,** Atlanta, was elected Secretary-Treasurer.

Cheney C. Sigman, Jr., Atlanta, attended the American Academy of Allergists meeting at Palm Springs, California, February 20-22, 1967.

Robert Mainor, Smyrna, has been installed as President of the Georgia Academy of General Practice. **Robert Huie** of Atlanta is President-elect, and **Stephen May,** Kennesaw, was elected Editor of the *Georgia General Practitioner.*

William A. Hopkins, Atlanta heart surgeon, was a guest speaker in Macon in January for the 1967 Bibb County Heart Fund Drive.

Charles R. Hatcher, Jr., Atlanta, was the guest speaker at the Hartwell Rotary Club in February. Dr. Hatcher directed his address toward the work of the Heart Fund.

Sixth District

Jerry P. Woodhall of Macon was elected President-elect of the Georgia Chapter of the American College of Surgeons at the group's February meeting in Atlanta. Outgoing President was **E. R. Jennings,** of Brunswick, and President for 1967 is **Charles Andrews** of Canton.

Henry T. Clay has been elected president of the Medical Staff of the Riverside Clinic Hospital for 1967. **John Thomas Dupree** is the retiring president.

Other officers elected are **V. H. McMichael,** vice president and **Andrew Lawrence,** secretary.

Standing committees named for the new year are program committee, **Robert Ferrell** and **A. B. Brinkley;** records committee, **Mark Durden;** tissue committee, **Leo Erberle;** and credentials committee, Dr. Dupree, Dr. McMichael and Dr. Dupree.

Seventh District

Smyrna pediatrician, **Howard Sigal,** received a public service award from the Cobb Chamber of Commerce. He was one of five so honored for "outstanding contributions to the county," at the Chamber's annual awards dinner in January.

Luther G. Fortson, Jr., Marietta, has been appointed Vice President for Medical Affairs of Kennestone Hospital, Marietta.

Eighth District

Scheduled to appear in *Who's Who in the American Specialty Medical Journal* is **Charles O. Walker, Jr.** Dr. Walker was in practice at Macon until he was drafted in February, 1966. He is currently Chief of Surgery at Tyndall Air Force Base, Panama City, Florida.

Mack Simmons, St. Simon's physician, received the Army and Air National Guard Meritorious Service Award, along with a framed letter of appreciation, from the 224th Radio Relay Squadron of the Air National Guard at an open house held in January. Dr. Simmons, a lieutenant colonel in the Air Force Reserve, learned in May of 1961, that the 224th was having difficulty enlisting a squadron officer, and volunteered his services. Since that time he has given approximately 300 physical examinations in a non-pay status, given immunization shots, and kept records up to date among other services.

Ninth District

The Professional Medical Staff of Stephens County Hospital has recently elected new officers for 1967 with **Arthur G. Singer** to serve as President. The other new officers are **Edward Graves,** Vice President, and **Elton L. Copelan,** Secretary-Treasurer.

The retiring officers for 1966 were **Henry H. McNeely,** President, **Robert E. Thompson,** Vice President, and **Edward Graves,** Secretary-Treasurer.

Physicians elected as Chiefs of the various Medical Departments are as follows: **M. D. Pittard,** Chief of General Medicine; **Kenneth Conoley,** Chief of Pediatrics; **Elton L. Copelan,** Chief of Obstetrics and Gynecology; **Donald A. Crippen,** Chief of Surgery; **Arthur G. Singer,** Chief of Radiology.

Tenth District

Six Augusta physicians will participate in the 15th annual meeting of the American College of Obstetricians and Gynecologists, April 15-20 in Washington, D.C.

They are **Drs. William E. Barfield, Chester B. Martin, Jr., Charles I. Bryans, Jr., Paul G. McDonough, Col. Carlton W. Sargent** and **Richard Torpin.**

PATIENT CARE ONE OF FOUR TOPICS OF GENERAL SESSIONS AT 1967 AMA ANNUAL CONVENTION

Patient care, from the standpoint of standard methods as well as research, will be one of four topics presented in general scientific sessions at this year's Annual Convention of the American Medical Association.

The Convention is to be held in Atlantic City June 18-22; the Scientific Program will be at Convention Hall, and nearby hotels, and the House of Delegates will meet at the Chalfonte-Haddon Hall Hotel.

The General Scientific Meetings are open to all physicians attending the Annual Convention.

Other General Scientific Meetings on this year's Annual Convention program will be on the subjects of: backache, healing and sex.

In addition to the General Sessions, each of the 22 Scientific Sections will present scientific programs. Many of the Section programs will, as in past years, be joint meetings of two or more Sections and, in some instances, a specialty society.

Specialty societies joining AMA Sections will include:

—The American College of Chest Physicians, which will join the Section on Diseases of the Chest for a program.

—The American College of Cardiology, which will join the Section on Internal Medicine in a session.

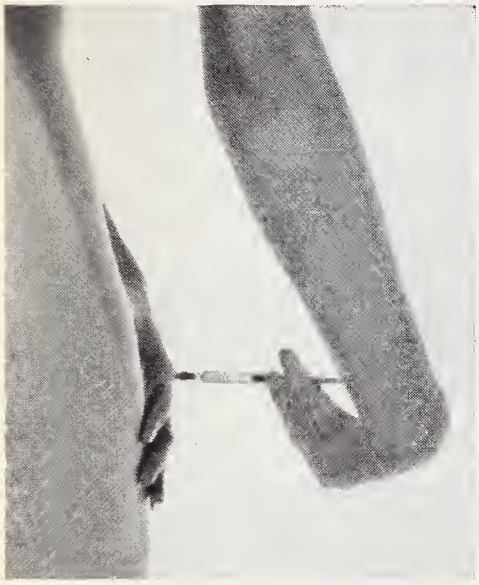
—The Society for Investigative Dermatology, Inc., which will hold its meetings in conjunction with the Section on Dermatology.

New
low-cost tetracycline/antifungal therapy

for broad-spectrum activity
plus specific antifungal prophylaxis
at significant patient savings

Whenever tetracycline is indicated in these candidates for Candida:

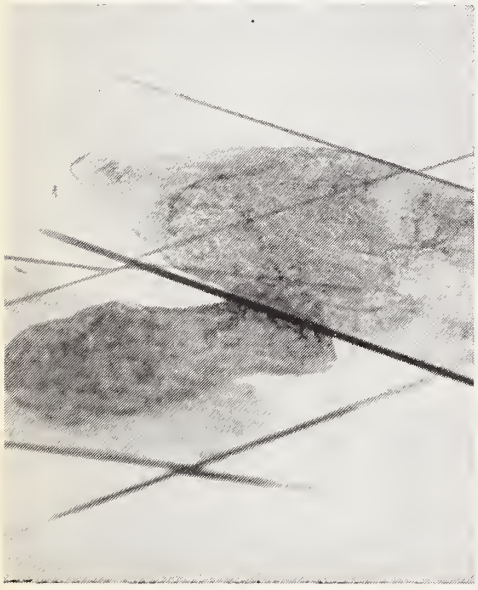
. diabetic patients



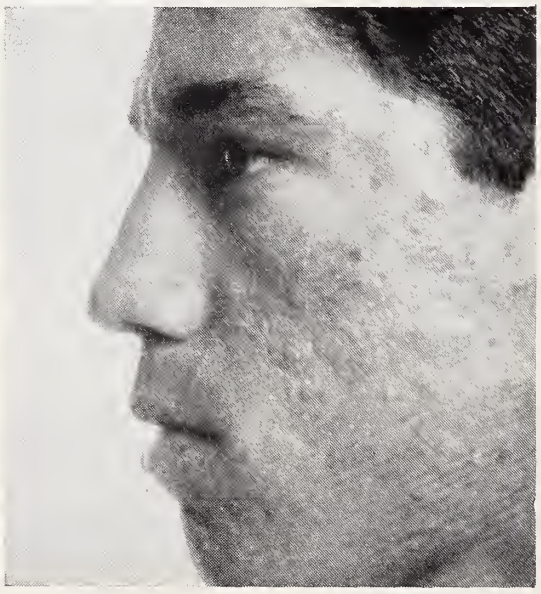
2. nonpregnant women with a history of recent or recurrent monilial vaginitis

3. elderly or debilitated patients

patients with a past history of moniliasis



5. patients on long-term tetracycline or corticosteroid therapy



PRESCRIBING INFORMATION. For complete informa tion consult Official Package Circular. *Indications:* In fections of respiratory, gastrointestinal and genitourinar tracts and skin and soft tissues due to tetracycline-sensi tive organisms, in patients with increased susceptibilit to monilial infections. *Contraindications:* The drug i contraindicated in patients hypersensitive to its compo nents. *Warnings:* Photodynamic reactions have been pro duced by tetracyclines. Natural and artificial sunligh should be avoided during therapy. Stop treatment if ski discomfort occurs. With renal impairment, systemic accu mulation and hepatotoxicity may occur. In this situatio lower doses should be used. Tooth staining and enam hypoplasia may be induced during tooth developmen (last trimester of pregnancy, neonatal period and child hood.) *Precautions:* Bacterial superinfections may occur Infants may develop increased intracranial pressure wit bulging fontanels. In gonorrheal therapy, serologic test for syphilis should be conducted initially and monthl for 3 months. *Adverse Reactions:* Glossitis, stomatiti nausea, diarrhea, flatulence, proctitis, vaginitis, dermatiti and allergic reactions may occur. *Usual Adult Dosage:* capsule q.i.d. Continue for 10 days in Beta-hemolytic strep tococcal infections. Administer one hour before or tw hours after meals. *Supplied:* Capsules, bottles of 16 an 100. Each capsule contains tetracycline phosphate com plex equivalent to 250 mg. tetracycline HCl activity an 250,000 units of nystatin. For Oral Suspension, 125 m tetracycline and 125,000 u. nystatin/5 ml., 60 ml. bottle

BRISTOL

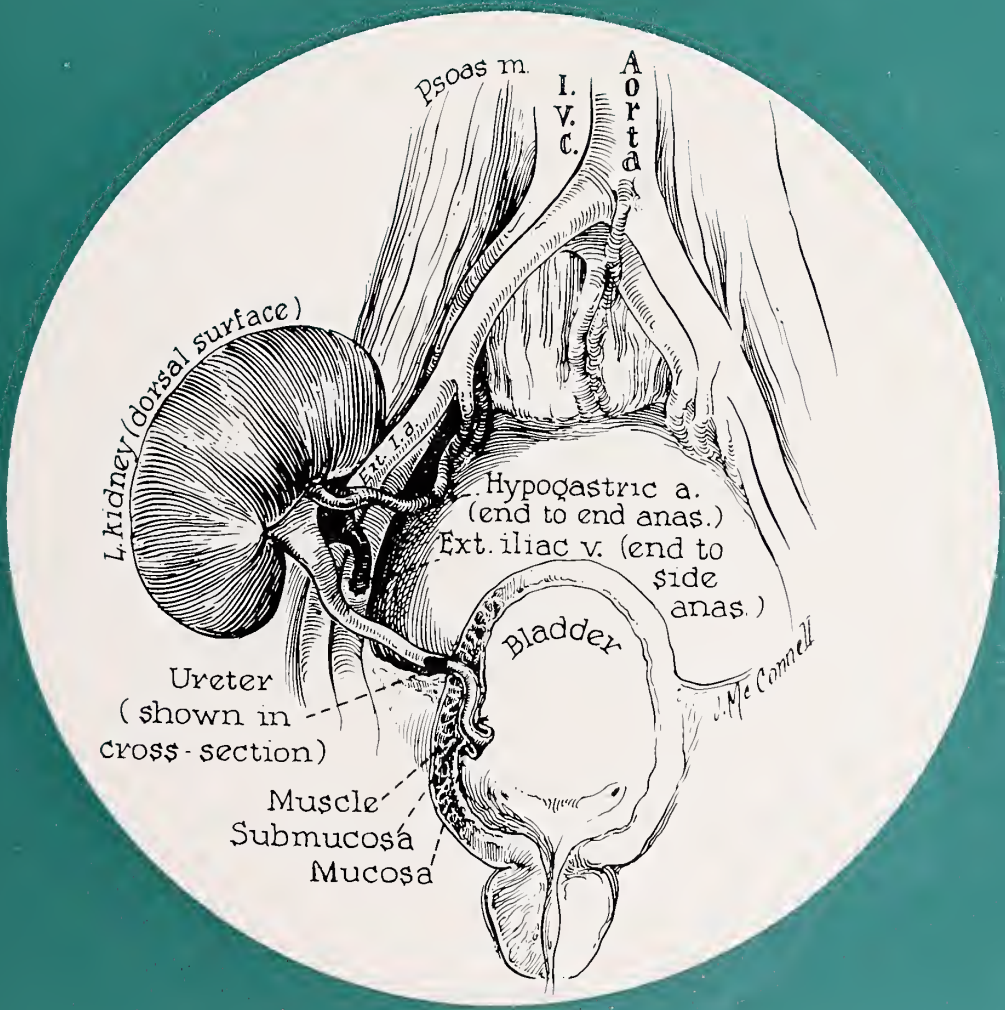
BRISTOL LABORATORIES
Division of Bristol-Myers Company
Syracuse, New York

Tetrex-F®

Each capsule contains tetracycline phosphate complex equivalent to tetracycline hydrochloride 250 mg. and nystatin 250,000 units

JOURNAL OF THE MEDICAL ASSOCIATION Georgia

MAY / 1967



Renal homograft

See page 177

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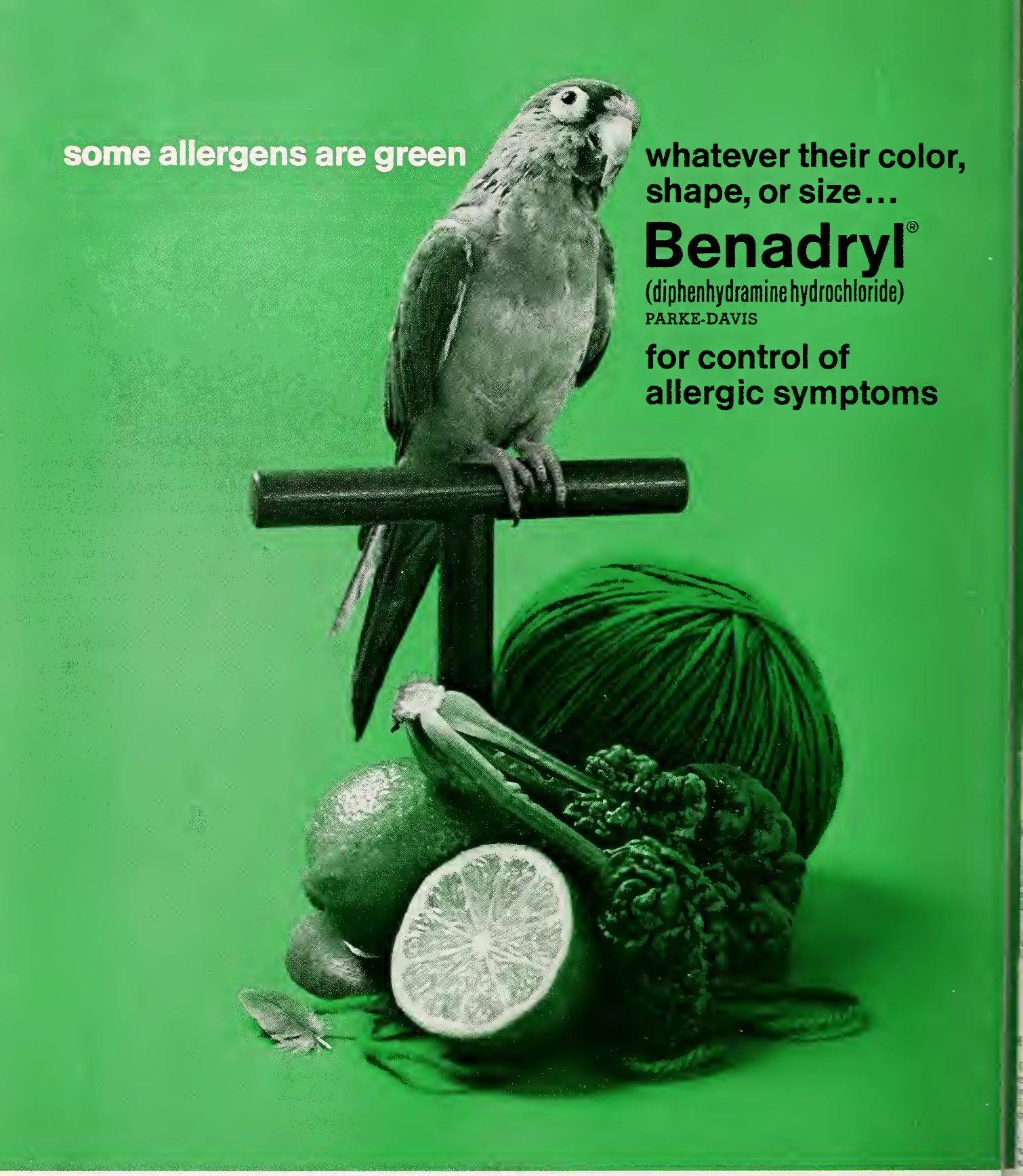

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Cover

Illustration reprinted with permission of *JAMA* 187:734, 1964, and the author, Thomas E. Starzl, M.D., 415 Krameria Street, Denver, Colorado 80220. From the scientific paper, "Problems in Renal Homotransplantation."

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JOURNAL OF THE MEDICAL ASSOCIATION Georgia

Current Clinical Concepts

PROGRESS IN RENAL TRANSPLANTATION —A REVIEW

Arthur L. Humphries, Jr., M.D., *Augusta*

RENAL TRANSPLANTS are now therapeutic; 67% of transplants from related donors were still functioning after two years.[1] No longer are they experimental. Just 15 years ago three doctors* at Boston's Peter Bent Brigham Hospital transplanted a cadaver kidney after midnight in an end room of the surgical ward for fear the administration would frown on the use of the operating room. The patient was helped by the temporary function of the kidney and survived. One of the three doctors (Hume) has devoted most of his time since then to kidney transplants. By contrast to these encouraging results with a complicated new operation, results with "routine" operations on cancer patients, operations used for 50 years by thousands of surgeons, still enable less than 50% of patients with carcinoma of the lung,[3] esophagus, stomach, gallbladder, or pancreas to survive two years.[4]

It's not that the surgical technique is so difficult. The basic technique of sewing vessels and transplanting kidneys is that developed by Dörfler, Carrel, and Guthrie in 1900.[5] Sewing the renal artery to the hypogastric artery end-to-end, and the renal vein to the iliac vein end-to-side, and implanting the ureter into the bladder is usually a straight-forward procedure.†

But there is a major new problem with transplants. All transplants, except between identical twins, are recognized by the patient as "foreign," and are killed by the patient's immune response unless the immune response is suppressed satisfactorily. The more nearly similar—antigenically similar—the donor and the recipient are, the less intense will be the immune response. This major problem of suppressing the immune response creates two other problems, the problem of finding a suitable donor for the kidney, and the problem of paying for intensive care. Total care including dialysis before operation, as well as after, can cost about $5,000 to $20,000,[6] depending on how quickly and how well the transplant starts functioning.

Finding A Kidney Donor

The best donors evoke the least immune response and till now have been mothers, siblings, or fathers. Excitingly, however, some non-related donors are also antigenically similar to recipients and have been identified *before* transplantation. Terasaki's method[1] of antigen-typing was this: He used a number of sera from women who had had multiple abortions as a standard battery of antisera. With this he determined the pattern of reaction against the donor's antigen-containing lymphocytes. This pattern (the serotype) he recorded for each donor available, 106 volunteer convicts. When a patient needed a kidney, he determined the patient's serotype with the same battery and recommended as a donor the convict whose serotype most nearly matched the patient's. Using these donors for 12 months, Starzl and associates[1] found that kidneys from these serotype-matched non-relatives functioned as well as kidneys from serotype-matched relatives. This method of determining serotypes does not identify individual antigens, but Medawar predicts a method to do so will be available by 1967.

* *Drs. Hufnagel, Landsteiner, and Hume.*[2]

† *Nonetheless, the more quickly and expertly it is done as exemplified by Starzl, Marchioro, and associates, the better are the overall results.*

From the Department of Surgery, Medical College of Georgia and the Eugene Talmadge Memorial Hospital, Augusta.

To avoid the moral problem of using live donors one can use cadaver kidneys. And despite two strikes against them, the longer ischemia and the greater antigenic dissimilarity, cadaver kidneys have served surprisingly well. Of those transplanted one to two years ago in Hume's series, 36% are still functioning.[7] But to use them successfully the physician must work extra hard.

Only 5% to 33% of cadaver kidneys (from patients dying in a hospital) should even be tried as transplants.[8-10] The others are unsuitable because the patient is very young or very old, or has had hypertension, pyelonephritis, an elevated blood urea nitrogen, a malignancy (two kidney transplants caused transplanted carcinoma),[11, 12] or transmissible infection including histoplasmosis,[13] syphilis, hepatitis, or severe bacterial sepsis.[10] Still others are unsuitable because the cadaver donor's ABO blood type is not the same as that of the recipient's or not acceptable as already defined for blood transfusions.[14] Of kidneys that meet these criteria, some will suffer too much ischemia during the last hours before death. And those kidneys not obtained within 40 minutes or so after death[15] will be damaged irreversibly. To obtain cadaver kidneys quickly in Richmond, three surgical teams sleep in the hospital when a potential donor becomes terminal.

Another Hurdle

At this point state laws come as another hurdle since they require that relatives sign permission but not until after the donor dies. In Georgia, the law (at least as pertains to the eye) is more favorable than in most states,[10] in that a person may sign permission himself for use of his eyes after he dies. This law was enacted in 1961 by a bill to establish eye banks (No. 526 House Bill No. 326). It stipulated that ". . . any person of legal age and of sound mind may donate such person's eyes. . . . Such donation shall be made effective by filing with the parties maintaining the donee eye bank a written instrument showing the donor's intention . . . upon the death of any donor . . . the parties . . . may authorize any physician . . . to extract . . . such donated eyes." This law needs modification to enable a person to will not only his eyes but any organ of his body.

The cadaver kidney suffers even during its removal, which requires sterile dissection of artery, vein, and ureter and so takes more time than one might think. It suffers less if cooled either with cold Ringer's lactate infused into the aorta or with oxygenated blood perfused into cannulated femoral vessels. This latter method has been helpful when the femoral vessels are already cannulated after unsuccessful open-heart surgery.[16, 9]

Once the kidney is obtained, it can be preserved fairly well for at least three hours with simple cooling. And it can be preserved for up to 48 hours—at least an autoreimplanted canine kidney can be—with cooling and hyperbaric oxygen.[17] We have preserved canine kidneys by constant perfusion with cold diluted blood, and have also successfully reimplanted them after 24-hour and 48-hour storage, and recently after five-day storage.[18, 19] Our method requires more equipment and care than does the hyperbaric method.

When kidneys can be preserved well, they can be transplanted less frenziedly and time can even be allowed for selecting the best-matched recipient. In this case serotypes would already have been determined for the recipients, being maintained on chronic dialysis, and then while the kidney was being preserved the serotype of the unexpected donor could be determined by Terasaki's method, which takes about five hours.

To avoid these problems nicely, one can use primate kidneys. But to protect them from the extreme immune response requires lethal doses of drugs. Although one patient with a chimpanzee kidney survived eight months, the other 12 patients fared far less well, suggesting that for several years at least xenografts would not be feasible.[20]

Suppressing the Immune Response

Before 1959, the immune response quickly killed most transplants, even those from related donors. In 1959 the immune response against foreign albumin was suppressed by 6-mercaptopurine,[21] as was soon thereafter the immune response against canine renal homotransplants.[22, 23] This drug's less toxic cousin, Imuran® (azathioprine), led to the relative success with human transplants these past six years and is still used primarily to protect them, while cortisone, and to a lesser extent, Actinomycin C and Azaserine®, are used to protect them during rejection crises. No better drugs have been found, but some other weapons now appear promising.

Most weapons are designed to eliminate lymphocytes* which, with the help of complement, kill the transplant.[24] The weapon used first was whole body irradiation, a shotgun more difficult to control than Imuran. Even Imuran suppresses enough polymorphonuclear leukocytes to cause many deaths from infection. A more specific way to suppress just lymphocytes, and easy to use in dialysis patients who already have a forearm arteriovenous shunt, is to irradiate the blood in the shunt.[25] Another potent weapon now being tried clinically in Denver has

It was just a coincidence that lymphocytes were chosen to determine serotypes. They were chosen not because they contained any more antigens than did other body cells, but because they could be conveniently collected from the blood.

been anti-lymphocyte serum. This antiserum, believed by Medawar to "blindfold" the lymphocytes from recognizing the transplant's antigen, delays rejection not only of a first graft, but even of a second graft after a first has hyperimmunized the animal.[26]

Another specific method is to remove the lymphocytes drained from a cannulated thoracic duct. Sarles[27] has even "killed two birds with one stone" by dialyzing the lymph as well as removing the lymphocytes before returning it. He thus reverses uremia and suppresses the immune response at one blow.

Summary

Already the problems with transplanting kidneys —the problem of finding best-matched donors, of preserving kidneys in transit if from cadaver donors, of suppressing the immune response delicately without inducing lethal infection, of reducing the cost for dialysis and other treatments—already these problems are being whittled away. Hopefully the major problem will be licked by a new, safe way to suppress the immune response.

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Each booklet, constructed of heavy vellum stock, measures approximately 12″ × 9″ and contains charts, graphs, illustrations, floor plans, etc. Both are made for easy handling and make a nice addition to a doctor's office library.

PANHYSTERECTOMY, PITUITARY STALK RESECTION AND CHEMOTHERAPY IN CHORIOCARCINOMA

Rafael A. Molina, M.D.
Robert B. Greenblatt, M.D., *Augusta*

■ A report of an apparently cured case.

CHORIOCARCINOMA is a dire disease with the poorest of prognosis. On the other hand, chorioadenoma destruens and syncytioma are relatively benign disorders.[2, 6] The purpose of this report is to place on record a successfully treated patient with advanced uterine choriocarcinoma, alive and well nine years later. Initially, panhysterectomy was performed, then pituitary stalk resection and subsequently chemotherapy was administered.

Case Report

M. S., a 21-year-old white female was first seen April, 1957 because of uterine bleeding of three months duration. She gave a history of having passed an hydatid mole four years previously. In the interim, several D&C's were performed by her LMD because of recurrent atypical bleeding. Histologic reports were not available to us, and it is assumed that a diagnosis of malignancy was not entertained. Examination at this time revealed a uterus that was enlarged to the size of a six weeks pregnancy. A test for pregnancy was positive. Large doses of progesterone failed to control bleeding. The hemoglobin fell to 5.9 gm.%, the hematocrit to 19%. Choriocarcinoma was suspected and a 24-hour urine specimen was assayed for chorionic gonadotropins, and values above 10,000,000 I.U. per 24 hour specimen were obtained. The chest film showed some infiltration in both apices which was interpreted by the radiologist as probable old tubercular fibrosis. A D&C was done and choriocarcinoma was confirmed (Figure 1). The patient received several blood transfusions and panhysterectomy was performed (April, 1957). At laparotomy a moderately enlarged uterus, the size of a four weeks pregnancy was encountered. There were omental adhesions to the uterus anteriorly. A considerable amount of free, fresh and old blood was present in the abdominal cavity. Extension of the neoplasm to the adherent sigmoid was noted involving an area measuring two inches in diameter.

The histopathologic report was trophoblastic tissue composed of Langhans and syncytial cells. Frequent mitotic figures and marked atypia were noted (Figure 2). The neoplasia involved the endometrium and extended through the wall of myometrium onto the posterior lateral surface of the fundus of the uterus. No tumor was seen in the omental tissue submitted or in ovaries and fallopian tubes.

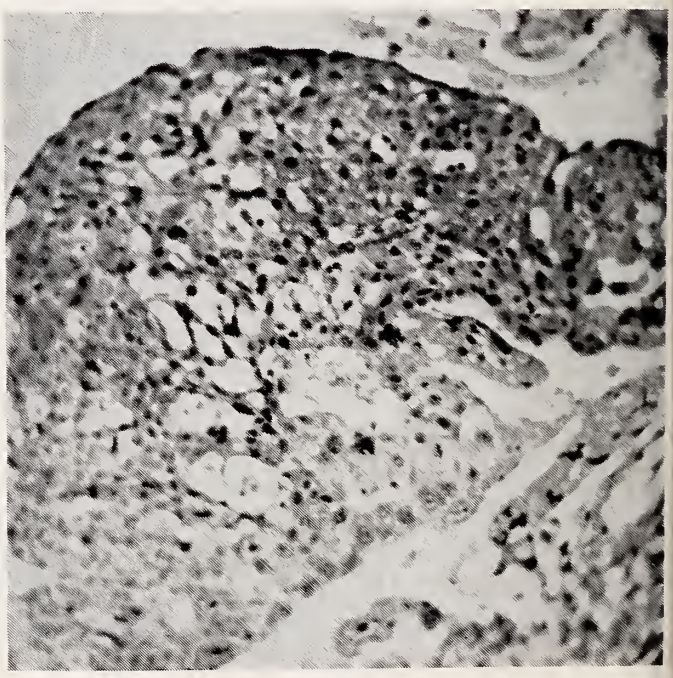


FIGURE 1

Photomicrograph of histologic section of curettings obtained by D&C. The histopathology is typical of choriocarcinoma.

Chorionic gonadotropin titers before and after treatment.

From the Department of Endocrinology, Medical College of Georgia, Augusta.

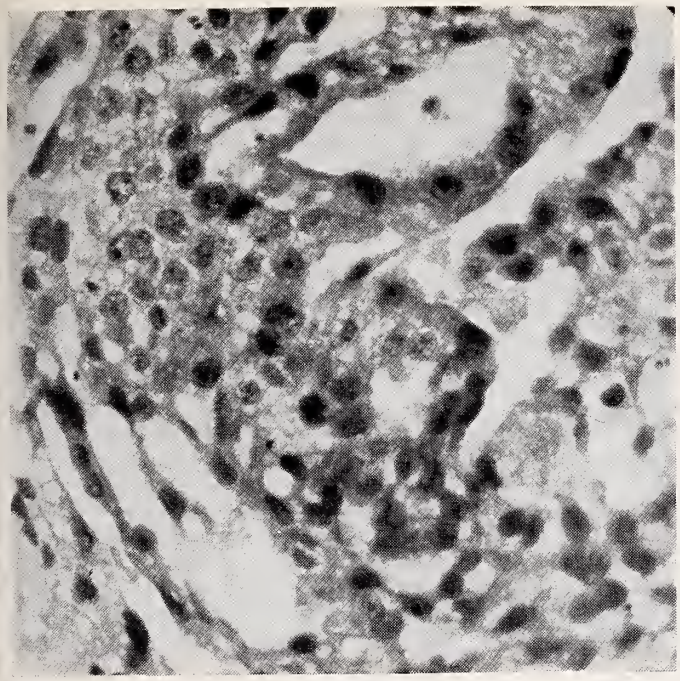


FIGURE 2

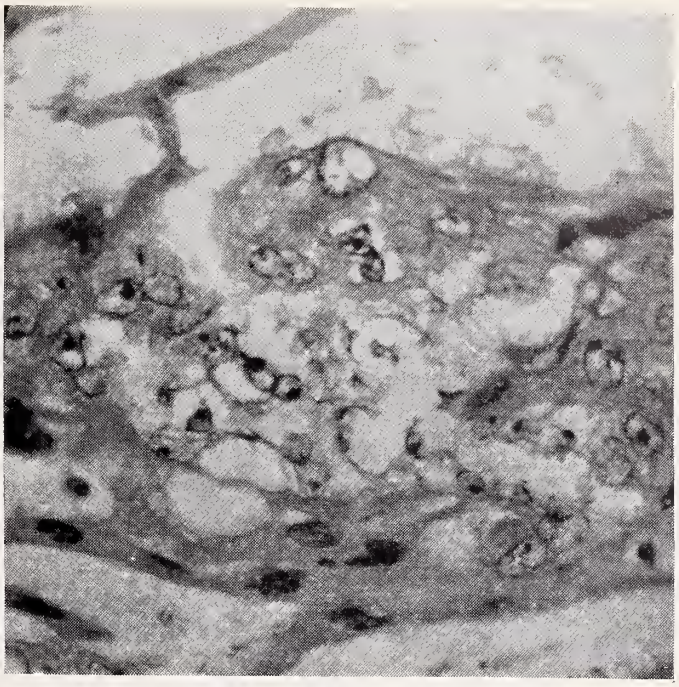


FIGURE 3

Photomicrograph of histologic section of tissue obtained by hysterectomy. Note arrangement of Langhans cells and syncytium confirming the diagnosis of choriocarcinoma.

Chorionic gonadotropin titers remained positive for some time after panhysterectomy and assayed at 10,000,000 I.U. per 24 hour urine. A course of deep radiation therapy was administered to the pelvic region. Chest film taken at this time was interpreted as "focal metastatic areas throughout both lungs."

Because of the persistence of high gonadotropin titers pituitary stalk resection was performed in the hope of modifying the course of the disease. Subsequent to this, galactorrhea, headache and convulsive seizures occurred; the patient was semicomatose for about five weeks.

After Stalk Resection

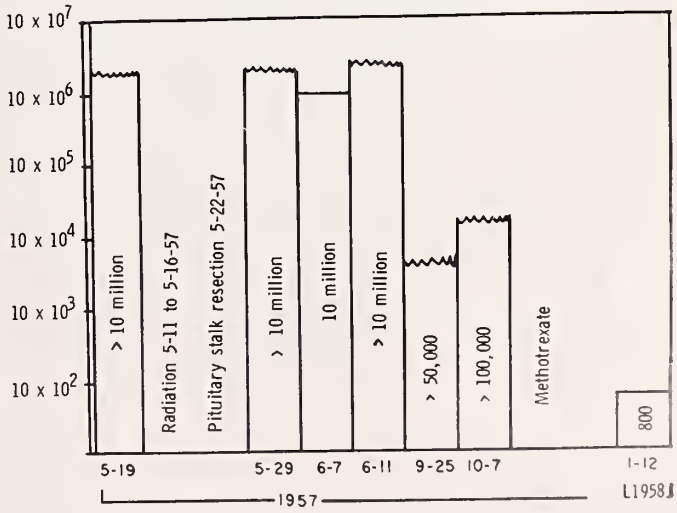
After stalk resection the chorionic gonadotropin assayed positive for 100,000 I.U. but negative for 500,000 I.U. (October, 1957). However, her weight declined from 110 to 80 pounds. The neurological complications gradually subsided and the patient was transferred to the National Cancer Institute in the care of Dr. Roy Hertz. Methotrexate, 25 mg. I.M. daily, was given for five days. The patient developed signs of marked toxicity, i.e., stomatitis, skin eruption, malaise and marked depression of RBC, WBC and platelet counts. Her weight loss continued to 61 pounds. She recovered slowly and by February, 1958 the chorionic gonadotropin titer fell remarkably to 800 and 1000 I.U.

Some time thereafter chorionic gonadotropin titers became negative and the condition of the patient began to improve perceptibly. She was placed on small doses of corticoids and thyroid therapy but these were discontinued after a few months. The lactation gradually subsided. The vaginal cytology was prepuberal in type. Estrogen replacement therapy was given her from time to time.

Now, nine years later, the patient is in excellent health, completely free of her disease, chest films show no lesions, pelvic examination remains unremarkable. On her last examination, Hb. was 13.1 gm.; hematocrit 38%; cholesterol 242 mg.%; T_3 uptake 34%; urinary 17-ketosteroids 2.8 mg. and 2.6 mg. per 24 hours urine; 17-ketogenic steroids 1.0 and 1.7 mg. per 24 hours urine; weight 148 pounds. She had been off estrogen therapy for several months and the vaginal cytology was of the castrate type and urinary gonadotropins were less than 6.6 M.U. per 24 hours. The patient is employed full time and has lost no time from her work in several years.

TABLE I

URINARY GONADOTROPINS VALUES



Comments

Since Li's original report,[5] chemotherapy alone (methotrexate, actinomycin D, vincaleukoblastine and other similar compounds), or in combination with surgery, has reversed the poor prognosis of malignant trophoblastic disease.[3, 4, 7] In our case, the doubtful role played by the pituitary stalk resection must be considered since the chorionic gonadotropin titers fell considerably after this procedure. To date, the published data regarding the elimination of the pituitary in the treatment of choriocarcinoma have not been encouraging.[1] Chemotherapy in conjunction with ablation of the primary tumor appears to be the therapy of choice in the management of uterine choriocarcinoma.

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HIGHLIGHTS OF THE ACTION OF MAG EXECUTIVE COMMITTEE MEETING APRIL 2, 1967

This summary is being published so that the MAG membership may be advised in brief of the actions of the Association's Council and Executive Committee. It covers only major actions and is not intended as a detailed report. Full minutes of these meetings are available upon any member's request to the MAG Headquarters Office.

Office of Economic Opportunity—Statesboro (Tri-County Medical Society)

A Called Meeting of the Medical Association of Georgia Executive Committee of Council was convened to give further study to the O.E.O. Health Care discussions with Bulloch-Candler-Evans County Medical Society. Officials from O.E.O. included Mr. Frank Sloan, O.E.O. Regional Director and Mr. J. E. Stodghill, O.E.O. Regional Office; Dr. Harry O'Rear, President, Medical College of Georgia and Dr. Gerald Holman, Medical College of Georgia; Dr. Leon Curry, President, Bulloch-Candler-Evans County Medical Society and Dr. Charles Bohler, Councilor, 1st District Medical Society; Mr. A. M. Braswell, Statesboro; MAG Legal Counsel Mr. John Moore—and members of MAG Executive Committee.

After due and deliberate discussion it was ascertained that no formulated program for the provision of health care by O.E.O. in the Statesboro area now exists. It was brought out that O.E.O. would welcome the Bulloch-Candler-Evans County Medical Society leadership in establishing such a program.

It was further emphasized that the Medical College of Georgia would not participate in any O.E.O. Health Care Program unless the local County Medical Society approved of such participation—and that the Medical College of Georgia would not even consider planning for such a program unless first invited and welcomed by the local county medical society.

After hearing from all parties on this matter, the MAG Executive Committee of Council in executive session voted to approve the following resolution:

> "On motion (Alexander-Mauldin), the Executive Committee of MAG Council recommends to Bulloch-Candler-Evans County Medical Society that a meeting of the Society be convened to determine if the Society is willing to discuss with other parties (O.E.O.; Medical College of Georgia; and MAG) this matter to see if a planning program could be worked out that is acceptable to them—and that the MAG Executive Committee agrees that this action should be carried to MAG Council for final approval."

It was also agreed that if Bulloch-Candler-Evans County Medical Society indicated approval of this idea, they would then contact the other parties concerned.

1967 CALENDAR OF MEETINGS

May 15-18—Program of the Fourth Post-Graduate Course, "Fractures and Other Injuries," sponsored by the Committee on Injuries of the American Academy of Orthopaedic Surgeons, Riviera Motor Hotel, Atlanta.

June 11-13—Symposium on Medicine and Religion, "The Physician, the Clergy and the Whole Man," sponsored by the Committee on Medicine and Religion of the Medical Society of the State of North Carolina, the Dept. of Religion of the AMA and the University of North Carolina School of Medicine, School of Medicine, UNC, Chapel Hill, N.C.

August 9-13—Sixth Annual Southwide Lawyers and Physicians Conference, "Is Jesus Christ Relevant in Modern Medicine and Law?," Lake Junaluska, N.C.

National

June 5-7—A continuation course in "Clinical Electroencephalography," sponsored by the American EEG Society, Philadelphia, Pa.

June 18-22—American Medical Association Annual Convention, Atlantic City, N.J.

IUCD FOUND EMBEDDED BETWEEN DECIDUA CAPSULARIS AND DECIDUA VERA OF TERM GESTATION

Richard Torpin, M.D.
Augusta, Georgia
Charles E. Wills, Jr., M.D.
Washington, Georgia

■ In spite of occasional complications, the device constitutes a significant step forward in population control.

THE PLACENTA, complete with fetal sac, was essentially discoid, thick and weighed 784 gm and measured 15 x 20 cm. It had a normal edge (not marginate or circumvallate) and the membrane sac was complete. The umbilical cord, 40 cm long, was inserted at the margin. The intrauterine contraceptive device with its coiled-loop end was 8 cm distant from the margin of the placenta. Judging from the hole in the fetal sac, made by the Cesarean operator, and presumably in the lower anterior wall, the placenta lay on the anterior wall of the uterus and the distance from the hole in the sac to the

FIGURE 1

Photograph of the fetal surface of the placenta upon which lie the membranes with the IUDC pressed between the decidua capsularis and the decidua vera.

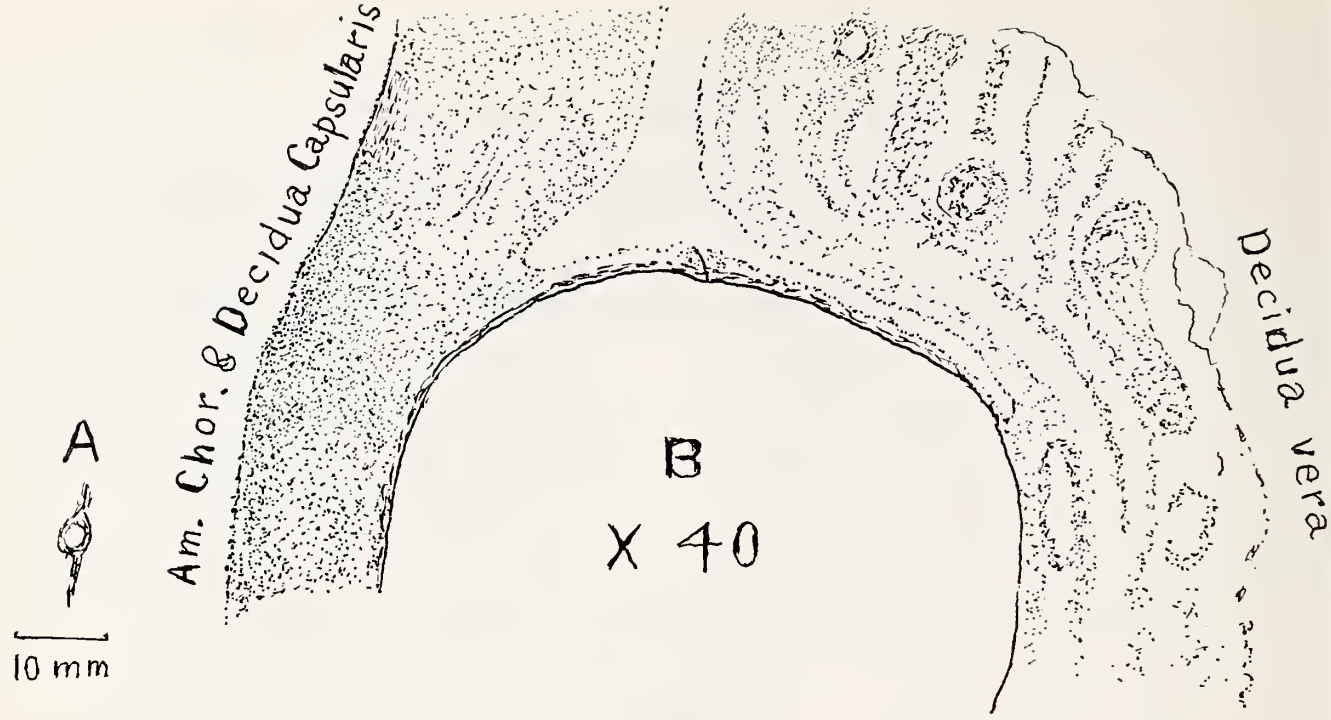

FIGURE 2

This slide may be unique in obstetric anatomy in that it, presumably, exactly delineates decidua capsularis from decidua vera. The small illustration (A) is a life size drawing of the section cut perpendicularly to, the membrane and through the hole made by the stem of the intrauterine contraceptive device as it lay wedged between the two deciduas. Illustration (B) is a rough enlargement showing, in this instance, that decidua capsularis (with amnion to the left) was about equal in thickness to the decidua vera which it intimately joined. (The paraffin block has been preserved and sections are available to anyone for further study.)

nearest lower margin of the placenta was 8 cm. The IUCD then lay high on the posterior wall near the extreme right side as noted in the x-ray film made before delivery of the fetus. The ovular implantation took place on the anterior wall of the uterus, fairly high up. The gestation sac, for a long time was independent of the device. Then as the uterine cavity enlarged, the relative position of the latter ascended, since it remained high in the fundus. It still lay upon the decidua vera, and as the gestation sac filled the cavity, the device was pressed between the decidua capsularis and the decidua vera. It was at all times outside of the amnion and chorion.

Device Imbedded

The microscopic slide showed that it was thus embedded in the decidua and probably at the junction of the decidua capsularis and decidua vera. The section of membrane was made so as to incorporate the hole made by the stem of the device. It also shows absence of evidence of infection at this site.

The mother, Caucasian, 32 years of age, had been diabetic since she was eight years old. This condition seemingly had been well controlled by 25 to 40 units of insulin daily. This was her fourth pregnancy, with two previous infants born living and well by Cesarean section. She had had one spontaneous abortion. Prior to this pregnancy, but not far from the time of its onset, she had been fitted with a Gynecoil type of contraceptive device.

This rather rare event is offered for publication not as an indictment of the use of this device or of similar such. The intrauterine contraceptive device may prove to be one of the most practical inventions for the preservation of stable populations. The contraceptive pills probably are more effective percentage-wise but are of some definite expense and need to be taken at specific regular intervals. For those on the poverty levels, the IUCD has been shown to be almost ideal, with some reservations. Approximately 20% of insertions have had mainly minor but occasionally major complications. The rare major ones possibly may have something to do with the insertion technic or of choice of size or model of device, and consists primarily of penetration of the uterine wall. In some instances this occurs by slow erosion. Utmost care on sterile technic should be observed to avoid later infection.

Spontaneous Expulsion

The most common minor complication seems to be spontaneous expulsion occurring in up to 20%. Rather insignificant bleeding is frequent. In addition pregnancy occurs subsequently in about 3%. Some of these abort spontaneously or by surgical intervention. This case report, and others, show that gestation may proceed to term without any complication, per se. This is one of the few studied in which the device was recovered, in situ, in the decidua of the fetal membranes. Most have been ex-

pelled, independently and without adverse effects, during labor. This and other reports show that the device may be identified by x-ray.

Further research should continue, especially in respect to the type of device used, its shape, size and stiffness of the plastic.

So far the exact mechanism of prevention of pregnancy is not known. The effects of prolonged use also are unknown. The Lippes loop seems to be most popular although it has a high expulsion rate.

Some have restricted the use of these devices to multiparas, since introduction in nulliparas seems to be attended with technical difficulties and the expulsion rate is higher.

Department of OB-GYN
Medical College of Georgia

ATLANTA'S GEORGIAN CLINIC CONTINUES TRAINING PROGRAM FOR TREATMENT OF THE ALCOHOLIC

The Georgian Clinic is happy to announce the continuation of the *one-week* training program entitled, "Introduction to the Attitudes and Techniques Useful in Rehabilitation of the Chronic Alcoholic."

The courses will be offered *weekly,* Monday mornings through Friday afternoons. Housing is available and trainees are expected to live on or near the Clinic grounds.

First Offering: September 12, 1966, through December 16, 1966 (excluding week of November 21-25 for Thanksgiving).

Second Offering: January 2, 1967, through March 31, 1967.

Third Offering: April 17, 1967, through June 9, 1967.

General Information

The course is conducted *weekly* at the Georgian Clinic. The Clinic offers a resident patient care program as well as a day patient program for individuals addicted to alcohol. The program is designed as an orientation for the professional worker and includes basic information which can be used by him when he returns to his job. Evaluating tools and tests are utilized during the week's experience to increase the effectiveness of the program. The tests are taken by the trainees on a strictly voluntary basis.

The facilities include a 50-bed resident patient department, together with a day patient clinic. The treatment program consists of complete evaluation of the patient, including complete medical, laboratory, psychiatric, psychological, social work, sociological and vocational work-ups; medical management of the withdrawal symptoms; long-range psychopharmacological treatment; group psychotherapy and group education; individual counseling; occupational, recreational, and music therapy; and group therapy for the patient's family in a therapeutic milieu.

The method of teaching utilized is a combination of didactic instruction, small group discussion, audio-visual aids, observation of treatment attitudes and techniques with a large group of patients in the Georgian Clinic.

Instructional Staff: The Clinic is staffed by a highly trained staff consisting of physicians, psychiatrists, pastoral counselors, psychologist, social workers, nurses, training coordinator, occupational therapist, vocational rehabilitation counselor, and ancillary personnel.

Information for Prospective Participants

For Whom: Professional workers such as physicians, nurses, social workers, psychologists, vocational rehabilitation counselors, sociologists, and health educators.

Fees and Expenses: Tuition for the course is $161.00. Room and Board at the Clinic for the week is $40.00. Scholarships for Tuition and/or Stipends for Room and Board are available for professionals with the exception of Federal employees. Participants or their sponsoring agency must provide all costs of travel incurred in attending these courses.

Application: Those desiring to attend these courses should apply as soon as possible. Applications will be considered in the order received and applicants will be notified promptly of the action taken.

To apply for training or for further information, please call or write: *Mrs. Patricia Donaldson, Training Program Coordinator, 1260 Briarcliff Road, N.E., Atlanta, Georgia 30306, Telephone: 873-5341.*

Special Article

THE URGE FOR SELF DESTRUCTION

The Honorable Millard F. Caldwell*
Tallahassee, Florida

WHETHER IN THE BEGINNING the Architect of the Universe planned it that way we can only guess, but it does seem true that in each of the human races there is a built-in urge for self destruction—an urge which manifests itself in eras of great progress. The Chinese, the Persians, the Egyptians, the Greeks, the Romans and several nations of more recent vintage all enjoyed periods of great advance in philosophy and science, the arts, literature, religion and government. But strangely, each of those peoples, once having reached a position of great strength, unassailable from without, developed a weakness from within which sapped pride, individual responsibility and independence. And, of course, without citizens in possession of such qualities, those nations fell by the wayside.

Shockingly Selfish

If it were given us to know the reason why a people willing to go hungry and scheme and scratch their way out of bondage into freedom, seems always destined to beget a progeny willing to surrender that same freedom without a fight, it is possible we could save for posterity this greatest of all free civilizations we enjoy in America. Without that knowledge, we appear destined for a time of trouble, because, forgetting the sacrifices necessary to gain independence, we have become shockingly selfish—we've swapped the battle cry of "liberty for all" for "what's in it for me now."

It's not enough to shrug it away along with Shakespeare's Puck and his observation of "Lord, what fools these mortals be" because I do not think the Lord intended us to be fools nor to content ourselves with fatalism or resignation. As self-respecting descendants of great forebears, logic would suggest that we manifest a willingness to stem the tide of ignominy and re-establish a nation of citizens dedicated to an independent, free civilization. One would think an enlightened America would scrutinize the pages of history, identify those common weaknesses which beset the no longer great nations of the past and, using that information as a chart, steer a course around the pitfalls.

"Something for Nothing"

One weakness which seems to have been common to the great civilizations which have bloomed and faded is that the people evolved a "something for nothing" complex—they demanded handouts, benefits, pensions, free shows and circuses and the political leaders, in order to retain control, taxed the people and pandered to their weakness. Admittedly, the habit of living on a dole is pernicious and highly destructive of the victims—a habit which robbed the people of dead and gone civilizations of the will to work, the desire for independence.

The discouraging thing about the welfare state and the tax and spend philosophy is that in all of history no nation, once seduced, has been able to throw it off. It's rather like drug addiction; it goes from bad to worse and finally throttles the instinct for self preservation.

Twice Abused

The abuse of unrestrained power by kings, tyrants and courts was responsible for the decline of some of the once great nations. Twice that abuse threatened England, once when King John's tyrannical conduct resulted in the revolt which gave birth to the Magna Charta and, later, when the Star Chamber Courts grossly exceeded their power and so outraged the English people as to cause their abolition.

There's no need to catalog the obvious weaknesses of the civilizations that are no more. The important thing to remember is that, in each instance, had the people retained their strength and will to fight for their rights, they could have been saved.

Curiosity prompts us to ask why we in this coun-

* *Associate Justice, Supreme Court, State of Florida.*

Read before the Woman's Auxiliary of the Florida Medical Association, Thirty-Ninth Annual Meeting, Hollywood, May 13, 1966.

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try are content to see our leaders launch the ship of state against those same old rocks which uniformly destroyed other countries? Why do we steer head-on to the shoals of tax and spend for political purposes, the debasement of our currency and the abuse of unrestrained judicial power? I leave to you the supplying of the answer—merely expressing the hope that your conclusion is not that we are so pusillanimously weak we will not stand up for what we know to be right.

As successful professional men and women you have respect for precedent. Let me cite a case in point and let's see if it tells us something worth while about this country of ours.

A Zenith Reached

The Roman Republic, the foremost power of its day, had reached its zenith. Its leadership had attained unbounded wealth and unstinted power. The rulers were intolerant of restraint, indifferent to the demands of the middle class and contemptuous of the Constitution designed to curb their ambitions. The time was some 70 years before the birth of Christ.

Young Marcus Tullius Cicero, then a student of law under old Scaevola, the eminent lawyer of his day, was just about to suffer his first great disillusionment with grasping government. Rome, by force of arms, guile and trickery, dominated the world. Its citizens had grown slick and fat, careless of their rights, and had fallen prey to ruthless politicians who craved more and ever more power and riches.

Cicero's first client was a substantial man of business—a man of integrity who trusted his government and his fellow man. But he was a rich man and, because powerful men of government coveted his wealth, he was the victim of bureaucratic chicanery. Young Cicero submitted documentary proof of his client's defense to the Judges, confident that justice would prevail.

To See a Parallel

Many of us who have watched with amazement the Supreme Court of the United States repudiate both precedent and the Constitution in its creation of new political policy for the guidance of this country can see a parallel in what happened next.

The case was not going well and Cicero consulted with his great friend and mentor, Scaevola, telling him what course he had followed and asked why he had failed. Scaevola was disgusted. He slammed the table and, leaning toward Cicero, shouted, "Imbecile! Of what use are records presented to tribunes, consuls or senators if the government is determined to rob and destroy a man who had displeased them, or who possessed what they want? Have I truly wasted all these years on such an idiot?"

If you deplore the spending of multiple billions on Nasser, Tito and the tribes of Africa, listen to this for precedent:

Cicero, before the august Senate, pleaded his client's defense against confiscation, saying:

> We are taxed in our bread and our wine, in our incomes and our investments, on our land and on our property, not only for base creatures who do not deserve the name of man, but for foreign nations, for complacent nations who will bow to us and accept our largesse and promise us to assist in the keeping of the peace—these mendicant nations who will destroy us when we show a moment of weakness or our treasury is bare, and surely it is becoming bare. We are taxed to maintain legions on their soil, in the name of law and order. We keep our allies in precarious balance only with our gold. Is the heart-blood of our nation worth these? Shall one Italian be sacrificed for Britain, for Gaul, for Egypt, for India, even for Greece, and a score of other nations? Were they bound to us with ties of love, they would not ask our gold. They would ask only our laws. They hate and despise us. And who shall say we are worthy of more?

What then occurred may throw some light on our indifference to government preoccupation with our personal affairs and our unwillingness to "rock the boat."

Cicero did not save his client, but he did live to argue the cause of honest government and to talk with Sulla, the Consul, about integrity and fair dealing. Sulla had little faith in the people. He believed them too deeply interested in their own welfare to concern themselves, too timid to stand up for their rights. He told Cicero the middle class, the lawyers, the physicians, the bankers and the merchants would make no sacrifices. He said none of the lawyers will challenge the lawmakers and cry to them, "This is unconstitutional, an affront to a free people, and it must not pass!" He asked:

> Will one of these (friends of yours) lift his eyes from his ledgers long enough to scan the Twelve Tables of Roman Law, and then expose those who violate them and help to remove them from power, even if it costs their lives? These fat men. Will six (lawyers) in this city, disregarding personal safety, rise up from their offices and stand in the Forum, and tell the people the inevitable fate of Rome unless they return to virtue and thrift and drive from the Senate the evil men who have corrupted them?

Rome continued to decay. The ambitious were fattening upon its bones. The liberties of the people were lifted one by one in the name of emergencies or traded in on benefits. Catiline, brilliant, uninhibited and evil, was pressing his suit for leadership.

As you watch the progress of government-sponsored demonstrations, the loving care with which the rioters are treated and the wholesale reversal of criminal convictions, listen to what Cicero, in his Second Oration before the Senate, had to say:

Too long have we said to ourselves "Intolerance of another's politics is barbarious and not to be countenanced in a civilized country." Are we not free? I tell you that freedom does not mean the freedom to exploit law in order to destroy it! It is not freedom which permits the Trojan Horse to be wheeled within the gates. . . . He who is not for Rome and Roman Law and Roman liberty is against Rome. He who espouses tyranny and oppression and the old dead despotisms is against Rome. He who plots against established authority and incited the populace to violence is against Rome. We cannot be for lawful ordinances and for an alien conspiracy at one and the same moment.

As you read the strained constructions placed upon the General Welfare and Interstate Commerce clauses of the Constitution and marvel at the results reached by the Supreme Court, listen to this precedent:

Cicero said: "Though liberty is established by law, we must be vigilant, for liberty to enslave us is always present under that very liberty. Our Constitution speaks of the 'general welfare of the people.' Under that phrase all sorts of excesses can be employed by lusting tyrants to make us bondsmen."

A Continued Struggle

As the years went by Cicero continued his struggle; he became Consul and, for a time, stopped waste and thievery. But the people again grew careless, weary of welldoing, and the avaricious and the corrupt politicians moved in and sought to banish Cicero. Once again he appeared before the Senate, but this time to plead his own cause.

Crassus, Caesar and Pompey were present. He turned and looked at them, but their faces were shut against him. His smile was sad as he said to them, "You have succeeded against me. Be it as you will. I will depart. . . ."

Then bearing in mind that our own government is pretty well riddled with subversives in high places, listen to Cicero as he defended his cause:

For this day's work, lords, you have encouraged treason and opened the prison doors to free the traitors. A nation can survive its fools, and even the ambitious. But it cannot survive treason from within. An enemy at the gates is less formidable, for he is known and he carries his banners openly against the city. But the traitor moves among those within the gates freely, his sly whispers rustling through all the alleys, heard in the very halls of government itself. For the traitor appears no traitor; he speaks in the accents familiar to his victims, and he wears their face and their garments, and he appeals to the baseness that lies deep in the hearts of all men. He rots the soul of a nation; he works secretly and unknown in the night to undermine the pillars of a city; he infects the body politic so that it can no longer resist. A murderer is less to be feared. The traitor is the carrier of the plague.

Cicero was exiled from Rome but not from his conscience. He continued to plead the cause of honest government. But the people he pleaded for were not concerned.

Cicero's friends of 2,000 years ago had about the same attitude our friends have in this Great Society era of 1966. The business and professional men, those who, had they lived in 1966, would have been members of the Chamber of Commerce, Rotary, Kiwanis and Exchange, told him: "We do not meddle in politics. Rome is prosperous and at peace. We have our villas in Caprae, our racing vessels, our houses, our servants, our pretty mistresses, and our comfort and treasures. We implore you, Cicero, do not disturb us with your lamentations of disaster. Rome is on the march to the mighty society for all Romans."

Cicero was in despair. He began to write his book *De Legibus,* but Atticus, his publisher, asked, "But who will read it? Romans care nothing for law any longer, their bellies are too full."

And then, Brutus, the long time sycophant of the ambitious Caesar, came to his senses and went to Cicero with his plea that something be done to save the nation. He confessed his error, he said he had believed in Caesar, he had believed he would restore the Republic, but he had betrayed his trust.

Do Not Blame Caesar

Cicero's bitter reply was: "Do not blame Caesar, blame the people of Rome who have so enthusiastically acclaimed and adored him and rejoiced in their loss of freedom and danced in his path and gave him triumphal processions. Blame the people who hail him when he speaks in the Forum of the 'new, wonderful good society' which shall now be Rome's. Julius was always an ambitious villain, but he is only one man."

I am not sure just where this country is going nor what life in America will be like five, ten or fifty years from now. But it's clear that the old ideas of supply and demand and the old concepts of local self government and individual responsibility have been discarded. And it's equally clear that the civic organizations generally are shirking the duty to safeguard the principles of free government.

It strains complacency to contemplate the changes which have occurred in the last thirty years. Our manner of government and our way of life are, for the United States, new and novel, with little in common with what has gone before. Our forefathers would be astounded by the insidious encroachments of centralized government in our everyday life.

Government is in the business of housing the people, in prescribing the hours we can work, with whom we must work, the salaries we are paid and

the tax to be withheld from that salary, the schools our children can go to and with whom they must sit and play. It is meddling with your health, your general welfare, your old age and your retirement, your security after retirement, your savings and the banks in which you place your savings, the conduct of your city, its police department and its department of health; the conduct of the affairs of your state, its law enforcement, its elections, the composition of its legislature and every other facet of your life, private and public.

But the people of this country may like all this—to say the least, they have asked for it. They have elected the public officials who brought it about and they sit around with their tin cups waiting for more. If that's what a majority of the people of this nation truly want, we must accept it—the majority has the right to change our form of government if it wishes.

Too Late

But one unfortunate aspect is that, once the die is finally cast, it will be too late to change our minds; it's altogether unlikely we could then ever re-establish the kind of government, the kind of independence and individuality our forefathers conceived and anticipated for posterity. We will have come too far and given up too much.

For that reason it is important that we give some thought to what is happening and reach some conclusions about what we'd like our future to be. We must count the cost of all the politically inspired humanitarian claptrap and be sure we're willing to pay the price in freedom, liberty and independence.

The First Thing to Decide

The first thing to decide is whether we want to live in a constitutional Republic or under a centralized socialism. Theoretically, I suppose the vast majority would say they prefer constitutional government, but as a matter of truth, that same majority is unwilling to jeopardize current prosperity linked to socialistic and inflationary practices. Indeed, it may be we are irrevocably committed—too many of us have sold the future for the hope of free medical care, free college education, social equality and security against poverty.

In good conscience, we cannot say the federal encroachments upon our rights and the rights of the states have come with any surprise. We have been warned and warned again. Two thousand years ago Cicero told us what to expect. When our ancestors were considering the adoption of the Federal Constitution for the new Republic, Patrick Henry, distrusting a central government, with true and unerring foresight told the people to "be extremely cautious, watchful, jealous of your liberty. Instead of securing your rights, you may lose them forever." He said, "There will be no checks, no real balances in this government." Looking ahead to 1966, he said, "This government will . . . destroy the state governments and swallow the liberties of the people."

George Mason was fearful of centralization and thought there was a very real danger of losing all the Revolution had gained. He said that a consolidated government "is totally subversive of every principle which has hitherto governed us."

William Grayson was suspicious of the proposed Supreme Court. He said, "This court has more power than any court under heaven. . . ." George Mason agreed and said the creation of the court would result in the destruction of state governments because, in the absence of restraint, the court "will be the judges of how far their law will operate."

Benjamin Franklin, after the Constitution was adopted, anticipating a people negligent in safeguarding their rights, said he thought our govenment would be well administered for a few years but that it "can only end in despotism."

The Dangers Inherent

At the conclusion of his two terms as President and in the light of his experience, George Washington thought the people of the future should be warned of the dangers inherent in an unrestrained Supreme Court. He said: "If . . . the distribution . . . of the constitutional powers be in any particular wrong, let it be corrected by an amendment in the way which the Constitution designates. But let there be no change by usurpation; for though this, in one instance, may be the instrument of good, it is the customary weapon by which free governments are destroyed."

Thomas Jefferson foresaw the evil of judicial encroachment when, in effect, he said the Court, under its philosophy, made the Constitution a mere thing of wax to be twisted into any form it pleased; that to consider the Judges the ultimate arbiter of the Constitution would place us under the despotism of an oligarchy.

Some years later Lord Macauley, the English historian, after a careful study of our govenment in general and our Constitution in particular, warned the American people:

> Your Constitution is all sail and no anchor. Either Caesar or Napoleon will seize the reins of government with a strong hand, or your Republic will be as fearfully plundered and laid waste by the barbarians in the twentieth century, as the Roman Empire was in the fifth—with this difference, that the Huns and Vandals who ravaged the Roman Empire came from without, and your Huns and Vandals will have been engendered within your own country by your own institutions.

It is reasonable to assume he thought the Supreme Court was one of the institutions which would destroy us from within.

Abraham Lincoln thought it necessary to tell the people: "If the policy of the government upon vital questions affecting the whole people is to be irrevocably fixed by the decisions of the Supreme Court, the people will have ceased to be their own rulers, having to that extent practically resigned their government into the hands of that eminent tribunal."

Robert Moses had this to say the other day:

> We are living in a second American Revolution, as critical as the first one which established our nation . . . the Supreme Court now legislates and executes. . . . It now by-passes the state courts and delegates to lower federal courts authority to tell the states what to do and how to do it . . . the states are reduced to peonage . . . until we change our Constitution, any five judges out of nine—distinguished men no doubt but political accidents not chosen by the people—are ruling the country and determining its future.

No, we cannot have been surprised by what has happened because, from our earliest days, we have been on notice it would happen. We, very simply, have refused to heed the warnings.

The whole trouble is that, in our civic stupor, we have forgotten that major policies, whether the gift of our substance to the communists or the regimentation of industry, agriculture, business and the professions, require either the approval or acquiescence of the citizens of this country. What has been done, both that which has contributed to our stability and that which has endangered our future, has been with our consent.

It is no longer of first importance whether we collectivize the professions or bankrupt the nation in abolishing poverty or in supporting our enemies abroad. The vital question, the question in the face of which all others fade to insignificance, is whether we save the Constitution of the United States and the Republican form of government established by it.

And, of course, saving the Constitution involves getting the Supreme Court out of the policy-making field and back on the Bench of a Court of law.

Many Approve

We must admit that many people, many splinter groups, approve one or the other of the encroachments by the Supreme Court upon the rights of the majority. The Negroes are happy in the belief that the Brown decision established superior rights for them over the majority; the criminals are happy with the Mallory and Escobedo decisions because of the great advantage gained over the law enforcement officers and society in general; the communists thoroughly approve the Schware, Konigsberg and the Slochower cases which insure their right to infiltrate the legal profession and the schools. The labor unions like the decisions which gave to them enormous advantages. The urban politicians like the reapportionment decisions which insure their control of the state houses and the Congress.

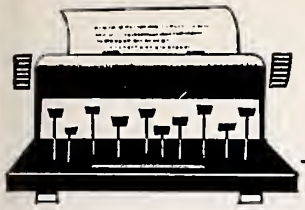
By coddling particular self-interest groups, one after the other, the "rule by man" forces have built a strong following—a following which is active, vocal and organized—composed of the neuter moderates, the ADAers, most of labor, practically all of the minorities, many ministers and many of the business and professional world. But I do not believe the tin cup crowd constitutes a majority of the people of this country.

The simple majority, and I emphasize the word simple, composed of decent, ordinary businessmen, doctors, farmers, mechanics, preachers, and just people, does not realize how it has been duped. The honest fellow has always been an easy mark—the easiest to rob.

The simple majority is slow to anger, not given to sit-downs and sit-ins, to placards and to violence and to hate. But neither is that majority watchful of its own rights and the freedoms it inherited from brave ancestors.

But there's a great difference in the composition of nationalities. Three or four hundred years ago the English, pushed to the wall by the power-spawned rule of the Star Chamber Courts, pushed back and recaptured their rights. The Russian people, in sheeplike docility, have submitted. The melting pot of America seems content and complacent. Its sycophantic Congress, reflecting public acquiescence, is groveling at the feet of the President. Its Democratic party has been captured and its Republican party is without policy or guidance. We appear to be drunk on benefits and slogans, rushing lightheartedly along to self destruction.

But perhaps all this is in keeping with natural law. The children of Hamlin followed the Pied Piper to ruin, the people of Germany and Italy followed Hitler and Mussolini, the ratlike lemming of Norway rush to the sea to drown, the sucker-like grunions of the Pacific rush from the sea to flop on the beach and die. The Roman republic was destroyed when the urban leaders pampered its populace with free handouts and a promise of a better day. Perhaps Benjamin Franklin knew what he was talking about when he told the young nation, after it had adopted its Constitution, in substance, that it had gained a free and independent nation but did not have the common sense to keep it.



EDITORIALS

Doctors Barrow and Smith Named To Georgia Regional Medical Program

Doctor J. Gordon Barrow of Atlanta was named Director of the Georgia Regional Medical Program on Heart Disease, Stroke, Cancer and Related Disease at the April meeting of the GRMP Advisory Group. The Advisory Group, representing some 20 voluntary and state government health organizations and Georgia's two medical schools, also authorized Dr. Barrow to employ a staff of five persons to carry out the planning phases of this program.

Associate Professor of Surgery, Robert R. Smith, M.D., Emory University School of Medicine, Atlanta, was named Associate Director of this new program.

A Recognized Authority

Dr. Barrow is a recognized authority in the field of cardiovascular disease. He was formerly Director of Medical Education at Georgia Baptist Hospital, Atlanta. He was also Director of the Cardiovascular Disease Control Service and Director of the Crippled Children's Cardiac Program, State Department of Public Health. As a board certified internist, Dr. Barrow has specialized in cardiology and is on the staff of Grady Memorial Hospital, Georgia Baptist Hospital, and Aidmore Hospital, Atlanta. A native of Atlanta, Dr. Barrow graduated from Emory University School of Medicine and served his internship at Grady Memorial Hospital, where he also served his residency in internal medicine.

Dr. Robert Smith, born in Mansfield, Ohio, graduated from Western Reserve University School of Medicine, Cleveland. Dr. Smith interned at U.S. Public Health Service Hospital, Baltimore, where he also received cancer therapy training in the Tumor Clinic. He served as medical officer in the U.S. Coast Guard during World War II. He was resident in general surgery at the U.S.P.H.S.H., Staten Island, New York; assistant resident and fellow in surgery at Memorial Hospital, New York City, and later Chief of the Surgery Branch, National Cancer Institute, Bethesda, Maryland. Dr. Smith is certified by the American Board of Surgery.

The Objectives

The objectives of the Georgia Regional Medical Program are the development of a comprehensive program in professional education and training in the fields of heart disease, cancer, stroke and related diseases for the medical and allied medical personnel and institutions in the state of Georgia, and the evaluation of health manpower needs, and means for meeting these needs, and demonstrations of improved methods of patient care in these fields.

Program plans call for the formation of "local" advisory groups in each of the 170 general hospitals in the state. In this way, local planning may be coordinated for the statewide program to supplement existing activities, and, where indicated, establish new activities in the fields of heart disease, cancer, stroke and related diseases.

This program is being conducted under a grant from the National Institutes of Health, U.S. Public Health Service of the Department of H.E.W. as provided in Public Law 89-239. The Medical Association of Georgia will serve as grantee for the 20 organizations, agencies, and institutions represented on the Advisory Group.

Dear Doctor

THURSDAY, February 9, 1967, was a momentous day, not for you but for me, as it was my eightieth birthday. Most of you are of lesser years and lesser experience.

I find myself disturbed.

From One Generation to Another

This message is from one generation to another. I have had my hour and pass soon into the shade. It is not only the younger men who dream dreams, nor old men who see visions. I had dreams and I am sure you have had visions. Let us combine our dreams and our visions, your greatness, your courage, and your strength—with experience.

In the next quarter of a century, as you play your part in this great nation of ours, the serious problem will be to impede the decline of the image of our profession. Many of us are disillusioned by the status of our image and other misfortunes, while lay people and governmental agencies conceive new plans to take over.

It is so vital for the individual physician to know what is going on if he is to preserve his individual freedom. To do this he must avail himself of every opportunity to attend the society meetings, form opinions and make judgments on problems.

A Broader View

I am an advocate of specialization, but a broader view of medicine as a whole makes the specialist more competent. He can attain this by more frequent attendance at our meetings.

From this day on let us rally to put duty first and think of rights afterwards. Upon each and every member rests the responsibility of your profession and mine with all of its activities and everything it comprehends. All of this is committed to you as conservators of the health of our nation.

Could you or would you do less than your ancestors?

The older generation is passing. Action is needed. You are the governors of the future of medicine. We rest in you the duty of guarding and safeguarding what is worthy and worthwhile in our past heritage and our traditions. You are in charge of our honor and all of our hopes, the beauties of nature, the treasures of the art and practice of medicine. We pray you will hold it for future generations, and unless you arise to the trust, there will be little benefit for you and your children or for all the people of the nation. You must exert a leadership of faith and character.

I dare not try to describe to you the shape of things to come, I know far more of the world that *was,* that *is* than of the world that *is to be.*

Thought and Effort

Let us awaken and march forward to the promised land or we may march backwards to the wilderness of suffering and sorrow. As a profession we may not be in jeopardy, but thought and effort must be used to prevent a disastrous transition.

Contributions of dues, riches, or professional jealousy will not save us. Duty to mankind, love of your profession and support by loyalty to its ideals will restore what is lost.

This is not an old man crying in despair, but I have a faint sense of hope that something may arouse all of us to be honest with ourselves and devote an undying loyalty to our profession.

This is written without consultation, with malice toward none, and with an unending devotion to an honored profession.

C. C. Aven, M.D.
Route #2
Marietta, Georgia 30060

The Immunoglobulins: Nomenclature, Structural Aspects and Changes in Disease

THE FAMILY OF PROTEINS that is responsible for antibody activity has been known heretofore as the gamma globulins. Many antibodies, however, migrate more rapidly, electrophoretically, than the gamma globulins. Moreover, in the group designated as gamma globulins are also molecules that do not function as antibodies. With the fairly recent perfection of the immunoelectrophorescent technique, which brought out the discrepancies in the above nomenclature, a new system of nomenclature has been adopted that classifies these proteins in a truer fashion. Investigation of antibodies and immunoglobulins has rapidly advanced in the past few years, elucidating the structures, relation of function to structure, and genetic, metabolic, environmental and disease factors that influence the immunoglobulin system. This paper will briefly outline the nomenclature, structural aspects and alternation in specific disease states of these antibodies.

Five Classes

Under the new nomenclature that has been adopted by the World Health Organization there are presently five classes of human antibodies, the last of which has been discovered within the past month: IgA, IgM, IgD, IgG, and IgE.[1] These correspond to the following groups under the older terminology (Table I).

TABLE I

I. Major Classes of Immunoglobulin Molecules

Common Terms	Proposed by WHO Report*
γ_2, 7Sγ, 6.6Sγ, γ	γG or IgG
γ_1A, γ_2A	γA or IgA
γ_1M, 19Sγ, γ-Macroglobulin, β_2M	γM or IgM

II. Constituent Polypeptide Chains

Heavy (Fast) Chains

Common Terms	Proposed by WHO Report*
γ_2-H	γ (gamma)
γ_1A-H, β_2A-H	α (alpha)
γ_1M-H, β_2M-H	μ (mu)

Light (Slow) Chains

Common Terms	Proposed by WHO Report*
Type I, B	κ (kappa)
Type II, A	λ (lambda)

* Bull. World Health Organ., 30:447, 1964.

The immunoglobulins also include the Bence Jones protein and normal urinary components which have no antibody activity but which are structurally related to the antibodies.

IgG (gamma G, 7Sγ_2-globulin). This class comprises about 75% of the immunoglobulins with a serum level of about 1.2 gm./100 ml. and molecular weight of 168,000.[2] Many of the antibodies in human serum are IgG molecules. Included in this group are viral and bacterial antibodies and the factor responsibility for LE cells. These are present in the newborn as they are actively transported across the placenta. Subclasses have recently been identified on the basis of specific antigenic factors detected with antiserums prepared in monkeys or rabbits. Antibody activity has been identified in these subclasses, but differences in the functional role remain to be defined.[2]

IgM (γM, 19Sγ_1M-Globulin). This class comprises from 5-7% of the immunoglobulins and is present in serum at about 0.12 gm./100 ml. with a molecular weight greater than 1,000,000. The isohemagglutinins, cold agglutinins, rheumatoid factors, antibodies against somatic "O" antigens of gram negative bacteria, Rh antibodies and heterophile antibodies are characteristically but not exclusively found in this class.[3] This class exhibits the most prompt rise upon antigenic stimulation and will not traverse the placental membrane.[4] A carbohydrate fraction comprises about 10% of these molecules.

IgA (γA, β_2A-Globulin). The serum level of IgA is about 0.39 gm./100 ml. or about 20% of the total serum immunoglobulins. The molecular weight is 160,000 and a carbohydrate moiety comprises 10-15% of this molecule.[2] Antibodies are found in this fraction against insulin and thyroglobulin in chronic thyroiditis (these also being present to some extent in IgG and often IgM).[5] It is thought that a special "piece" molecule combines with IgA in the secretory epithelium of the parotid gland, other salivary glands and colostrum to form the initial antibody defense mechanisms in these mucosal surfaces.[6]

IgD and IgE. Both of these classes have been discovered only recently.[7] Serum levels of the former approximate 0.003 gm.% or about 0.2% of the total

serum immunoglobulins.[8] Data on the latter group is unavailable at present.

The immunoglobulin is composed of both protein and carbohydrate but the exact location and function of the polysaccharides remain to be determined. Two different types of polypeptide chains have been identified by Edelman and Porter et al.[9] These are the light or "L" chains with a molecular weight of about 22,000; and the heavy or "H" chains with a molecular weight of about 55,000 (Figure 1). The immunoglobulin molecule contains four polypeptide chains, two "H" and two "L," connected by disulfide and noncovalent bonds.

Antibody specificity is determined by the heavy polypeptide chain, although recent evidence indicates that they must be combined with light chains to be completely active.[2] One heavy and one light chain appear to be associated with each antigen binding site. Only the part of the heavy chain that is directly approximate to the light chain has antibody activity. The other more distal portion accounts for other features of the molecule such as placental transfer, reaction with rheumatoid factor, genetically controlled Gm factor and a factor regulating catabolism.[10]

Polypeptide Chains

There are four different types of heavy chains; alpha, gamma, delta and mu. Due to the lack of material regarding IgE, discussion will be limited only to the above four. These types differ in chemical composition and immune response. The immunoglobulin molecule is named according to whether the heavy chain is gamma, i.e., IgG, mu or IgM, delta or IgD, etc.[2] There are two types of light chains, namely K (type I) and L (type II) or kappa and lambda.[11] In any given immunoglobulin molecule one finds only one type of light chain and one type of heavy chain. For example, IgG is composed of two gamma heavy chains and either two kappa or two lambda light chains. IgM is composed of two M heavy chains and either two K or two L light chains. The heavy chains carry Gm(a) specificity (genetic site) and contain carbohydrate. The light chains contain no carbohydrate and are the site of InV genotype specificity.

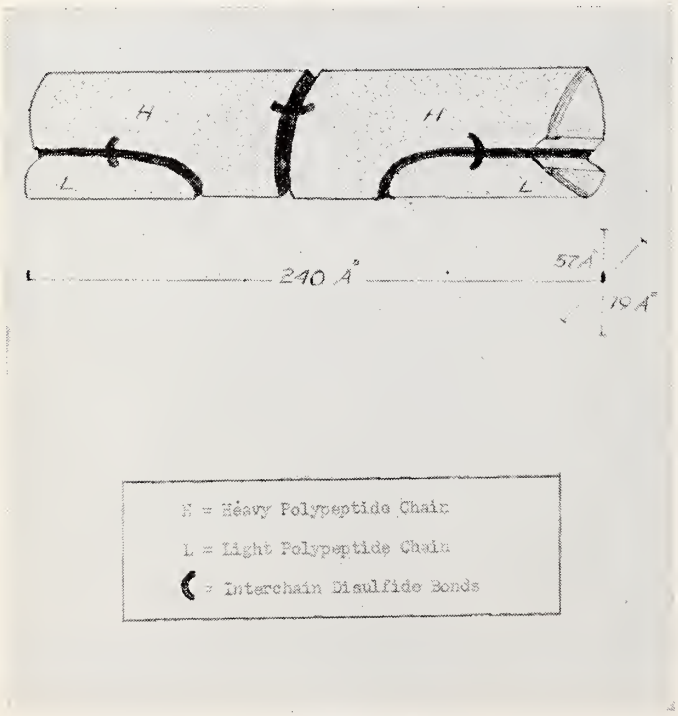


Figure 1

Normal Development and Changes in Disease

Immunoglobulin levels frequently reflect underlying disease processes. Recent evidence indicates a qualitative difference between primary and secondary antibody responses. The initial response appears to be the rapid rise in serum concentration of the IgM immunoglobulins, followed by a slow rise in the IgG fraction. As the IgM fraction has a rather short half-life of 5.1 days compared to the 23 day half life of IgG, it appears that the IgM immunoglobulin is the body's initial antibody defense.[3]

A considerable amount of antibody synthesis must occur before circulating antibody becomes detectable. At least 10^{16} molecules must be synthesized and retained intravascularly in a 132 lb. man to be detectable as 0.001 mg. antibody per ml. serum. After an initial stimulus, if protein antigen is administered a second time, the response is more rapid, reaches higher titers and is made up almost entirely of IgG.[12]

The IgM molecules are largely intravascular (80%) in location and are catabolized rapidly—14% of the body pool per day. Only 40% of IgG is intravascular and is catabolized at the rate of only 3% per day. The synthetic rate per day of IgG is 2.3 gm., IgM—0.4 gm. Recent evidence indicates that IgM antibody synthesis actually shuts off or markedly slows down when IgG synthesis starts.[13] IgA is catabolized at a rate of about 12% a day. Thus, although similar amounts as IgG are manufactured daily, the serum levels of IgA are much lower because of its higher rate of catabolism.

The development of "normal" immunoglobulin levels is the result of host reaction to his environment. This conclusion is based on studies on germ free animals which functioned with very low levels of immunoglobulins.[14] Genetic factors also probably modify the rate of synthesis.

Serum levels of the immunoglobulins may reflect abnormal changes in the cells that manufacture them, namely reticulum cells, plasma cells and lym-

phocytes. Failure of normal development may lead to agammaglobulinemia, hypogammaglobulinemia or to absence of one particular class of immunoglobulin. Selective deficiency of IgA has been noted in otherwise normal subjects and also occurs in ataxia telangectasia.[15] Malignant proliferation of immunoglobulin synthesizing cells accounts for G myeloma, A myeloma, macroglobulinemia (Waldenstrom) and Bence Jones protein.

Multiple Myeloma

Burnet proposed that multiple myeloma be considered the result of unlimited proliferation of a single clone of plasma cells producing excessive amounts of a homogenous protein.[16] This concept has been extended to include all instances of homogenous hypergammaglobulinemia in the term "monoclonal gammopathies" and those in which heterogeneous hypergammaglobulinemia occurs as "polyclonal gammopathies." In multiple myeloma, excessive production of L and H chains occurs. The H chain may be either of the gamma or alpha class, thus the terms IgA and IgG myeloma. There may be synchronous production of excessive amounts of one type of L chain and one class of H chain resulting in the appearance of homogeneous myeloma protein in the serum and no proteinuria. On the other hand, the rate of synthesis of L chains may exceed the rate of synthesis of H chains and the excess of L chains may appear in the serum in addition to the myeloma protein. The L chains are of low molecular weight and are rapidly excreted by the kidney. As a consequence, they are found in very low concentration in the serum but may appear in large amounts in the urine. The L chains have the thermal and solubility characteristics of Bence Jones protein.[17]

A few cases have been described in which the patients had asynchronous production of excessive H chains. This is accompanied by lymphadenopathy, splenomegally, fever and anemia and is referred to as Heavy Chain Disease.[18]

In 1944 Waldenstrom described two patients with marked elevation of serum macroglobulins. Immunoelectrophoresis of the serum from patients with macroglobulinemia usually reveals a dense gamma M band. This can, however, also be associated with cancer, syphilis, chronic infections, hepatitis, rheumatoid arthritis and sarcomas.[19]

Infectious Disease

This group includes such entities as leprosy, kala-azar and tuberculosis. An increase of IgG is characteristic of this group. IgA is only slightly increased.[20] In a recent study by Wollheims and Williams, immunoglobulin levels were determined in 36 patients with acute infectious mononucleosis. A linear relationship was present between heterophile titers and IgM levels but no relation was found between heterophile-antibody titers and either IgG or IgA.[21] A marked IgM increase has been found in patients with T. gambiense trypanosomiasis.[20]

Fungus Disease

A generalized increase in serum globulins is noted with coccidioidomycosis which correlates well with clinical observations of leukocytosis, fever and other aspects of inflammatory host response characteristic of coccidioidomycosis infections. The inflammatory changes are not prominent in cryptococcosis. In this disease, all classes of immunoglobulins tended to be decreased. Essentially normal serum concentrations of IgG, IgM and IgA have been found in patients with blastomycosis and histoplasmosis.[20]

Laennec's Cirrhosis

Marked elevations of serum IgA and IgG were noted in hepatic cirrhosis. IgM levels were usually normal. The serum IgA concentration was greater in cirrhosis than in any of the other diseases studied by Lahey (with the exception of IgA myeloma). This indicates that immunoplate studies may prove useful as a diagnostic tool here.[21]

Biliary Cirrhosis

The only alteration of serum immune globulin in two patients with biliary cirrhosis studied by Lahey was an increase in the IgM globulin concentration. This differs notably from the changes observed in hepatic cirrhosis as outlined above.[20]

Hepatoma

In this disease IgM levels have been found to be reduced to about 50% of normal values. A slight increase is noted in serum IgG without change in IgA.[20]

Wilson's Disease

Three patients with Wilson's disease exhibited slight decreases in all three immunoglobulins, the deficiency more pronounced in the IgA fraction.[20]

Nephrotic Syndrome

In five patients with nephrosis, the average serum levels of IgG and IgA were low, whereas the IgM was slightly increased. IgM macroglobulins are not usually found in the urine of patients with the nephrotic syndrome, although IgG and IgA globulins are characteristically present. The IgM macroglobulins do not escape into the urine because of their large molecular size. Thus, the observed serum protein concentrations are consistent with loss of IgG and IgA via the damaged kidney without loss of serum IgM macroglobulins.[21]

Among 12 patients with protein-losing enter-

opathy, marked decreases were apparent in all three serum immunoglobulin concentrations. These levels reflect the generalized serum protein loss into the gastrointestinal tract seen in this disease.[22]

Lupus Erythematosus

The pattern that has been found in studying this disease reflects the diffuse stimulation of the immune system. There are slight increases in all three major immunoglobulins. An interesting observation was the finding of a predominance of type I (kappa) chains in this disease.[20]

Myotonic Dystrophy

The results of immunoelectrophoresis in a group of 14 patients with myotonic dystrophy have shown that the IgM immunoglobulins were significantly reduced in at least 10 of the 14 patients. In contrast, no other significant abnormality was seen in either IgM or IgA proteins. This was discovered to be the result of increased catabolism for some unknown reason.[23]

Ataxia Telangiectasia

Studies on five patients with ataxia telangiectasia show a decrease in peripheral lymphoid tissue, lymphopenia, increased sedimentation rate, absence or decreased levels of IgA and almost complete failure of the function of delayed hypersensitivity and abnormal rejection of skin homografts. The susceptibility of these patients to sino-pulmonary infections substantiates the part that IgA plays in providing defense in the linings of the respiratory passages.[24]

Hodgkin's Disease and Leukemia

In patients evaluated with Hodgkin's disease there was a 20% increase in serum IgG. IgA was decreased. No change was apparent in serum IgM level. The findings are compatible with the evidence that patients with Hodgkin's disease do not have significant impairment of serum antibody production. It has been discovered that in patients with chronic lymphocytic leukemia, all three major classes are reduced and in chronic myelogenous and acute lymphocytic leukemia IgA is decreased.[20]

Summary

The new nomenclature of the immunoglobulins as specificed by the World Health Organization has been discussed and some of the structural aspects and characteristics of these proteins have been delineated. In addition, the changes that these proteins exhibit in specific disease states have been presented. It must be emphasized that the technique of immunoelectrophoresis is just now gaining a foothold in the realm of clinical diagnostics, and that, with further research and development, this tool may prove to be a valuable asset in the future diagnosis of disease.

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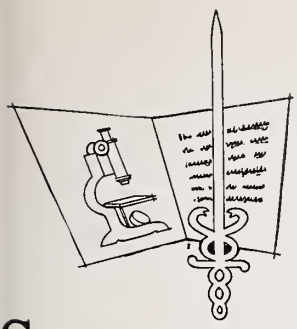
*Scott MacLeod, M.D.**
Kings County Hospital
New York, New York

** Dr. MacLeod is a 1966 graduate of the Medical College of Georgia, Augusta. The above scientific paper was written as Dr. MacLeod's senior presentation.*



CANCER OF THE UTERINE ADNEXA

Philip I. Krugman, M.D., *Atlanta*

SILENT AND HIDDEN NEOPLASMS of the female genital tract offer one of the greatest challenges to the diagnostic acumen of the examining physician. Cancer of the cervix uteri and, indeed, corpus carcinoma are being rapidly conquered by virtue of the utilization and perfection of the cytological smear, in addition to valuable assistance from the use of the suction curette and uterine washings.

Serious Consideration

Although they may comprise a relatively small percent of cancer of the female genital tract, neoplasms of the uterine appendages, specifically the tubes and ovaries, must be given serious consideration since ovarian carcinoma accounts for 20% of all gynecological cancer, and tubal carcinoma approximately 0.5% to 1.0% of genital malignancies. Added incentive to our efforts for early diagnosis of ovarian carcinoma should be instituted, since five-year survival figures are variously quoted as only 15% to 20%. Tubal carcinoma is still, in most instances, discovered by accident at the time of pelvic laparotomy, since it develops and grows insidiously; however, newer diagnostic procedures are leading us to suspect this neoplasm preoperatively.

The five-year survival rate of tubal carcinoma is probably not better than 40% with early diagnosis, and practically nil when discovered late, after symptoms of tumor, bleeding and pain have developed. Graham, et al,[1] and Grillo and Associates[2] recently have advocated the use of culdocentesis with proper fixation and staining of the peritoneal fluid by standard Papanicolaou technique as a valuable adjunct in early detection of malignant lesions involving the ovaries and possibly the tubes. Culdoscopy, with direct visualization of the internal genitalia, promises to be of considerable value in early diagnosis.

Pelvic examinations should be done annually, and, in some instances, more frequently, in an effort to detect abnormal enlargements of the uterine adnexa. The Papanicolaou smear should be utilized in every instance since occasional cases of tubal or ovarian carcinoma may be uncovered or suspected with a positive smear. Graham and Van Niekerk[3] have noted that encapsulated ovarian carcinoma does exfoliate cells which may be found in the vaginal smear in about 50% of the cases. Cancer of the ovary should be considered in any patient with a positive vaginal smear and negative findings on tissue examination of the corpus and cervix. Laparotomy is indicated for any persistent ovarian enlargement of 5 to 6 cm. in diameter, and in any instance of ovarian enlargement in postmenopausal years. Laparotomy is likewise indicated whenever there is a persistently positive Papanicolaou smear in the presence of negative cervical and endometrial tissue specimens.

Prophylactic removal of the ovaries at the time of hysterectomy is a controversial issue. There are many advocates of prophylactic extirpation of the ovaries whenever hysterectomy is performed in a patient over age 40 or 45. DeNeef and Hollenbeck[4] found that the incidence of pathologic changes in the retained ovaries was quite low, whereas the incidence of postoperative menopausal symptoms was higher among patients in whom both ovaries were removed at the time of hysterectomy than among patients who had ovarian tissue preserved. However, many other authors have contributions in the literature which tend to encourage the removal of ovaries at the time of hysterectomy in the middle forties because of subsequent development of cancer in these organs.

Surgery, combined with chemotherapeutic agents, and/or radiation therapy probably offers the best prognosis for survival with ovarian or tubal carcinoma. The use of Chlorambucil has been recently advocated as probably giving the best over-all survival picture.

In conclusion, we may say that cancer of the ovary and Fallopian tube are extremely treacherous in their development and growth. Early diagnosis is of paramount importance and the examining physician must keep these tumors in mind when making periodic pelvic examinations. Valuable adjuncts to early diagnosis continue to be the Papanicolaou smear, culdocentesis and culdoscopy.

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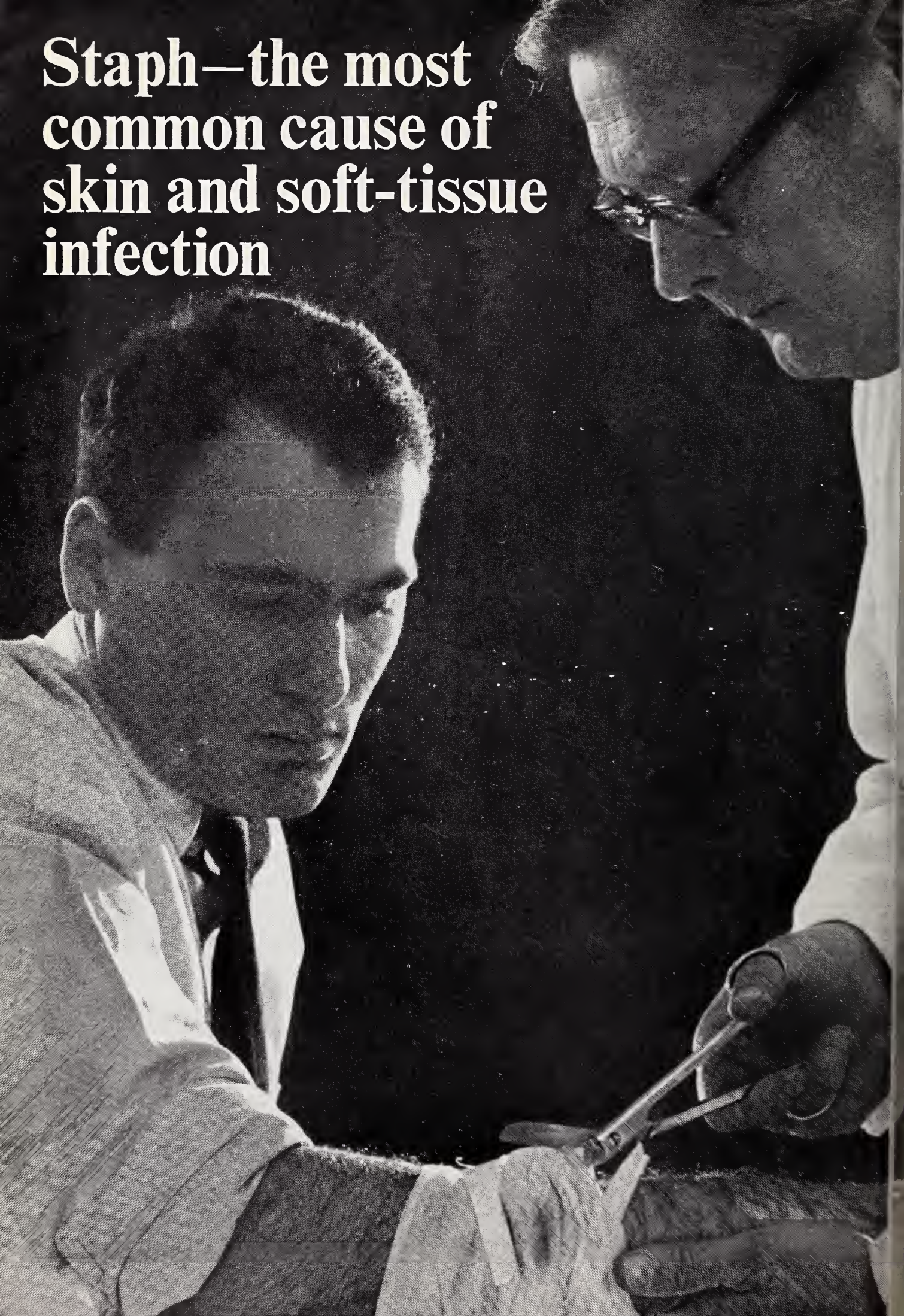
Approved by the Professional Education Committee, Georgia Division, ACS.

Staph—the most common cause of skin and soft-tissue infection



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PRESCRIBING INFORMATION: For complete information, consult Official Package Circular. *Indications:* Infections caused by Staphylococci, particularly those due to penicillin G-resistant Staphylococci. *Contraindications:* A history of severe allergic reactions to penicillin. *Precautions:* Typical penicillin-allergic reactions may occur. Safety for use in pregnancy and premature infants is not established. Because of limited experience, use cautiously and evaluate organ system function frequently in neonates. Mycotic or bacterial superinfections may occur. Assess renal, hematopoietic and hepatic function intermittently during long-term therapy. *Adverse Reactions:* Skin rashes, pruritus, urticaria, eosinophilia, nausea, vomiting, diarrhea, fever and occasional anaphylaxis. Rare cases of reversible hepatocellular dysfunction have occurred. Moderate SGOT elevations have been noted. Thrombophlebitis has occurred occasionally during intravenous therapy and leukopenia was noted in two cases. *Usual Oral Dosage:* Adults: 500 mg. *q.4* or *q.6h.* Children: 50 mg./Kg./day. *Usual Parenteral Dosage:* Adults: 250-500 mg. *q.4* or *q.6h.* Children: 50 mg./Kg./day. Treat beta-hemolytic streptococcal infections for at least 10 days. Give oral drug 1 to 2 hours before meals. *Supplied:* Capsules—250 and 500 mg. in bottles of 48. Injectable—250 mg., 500 mg., and 1 Gm. dry filled vial for I.M./I.V. use. For Oral Solution—100 ml. bottle, 250 mg./5 ml. when reconstituted. **A.H.F.S. CATEGORY: 8:12.6**

References: 1. Abstracted from *Antibiotic Sensitivity of Staphylococci Studied from November 1962 through August 1965,* reported by Griffith, L.J., Staphylococcus Reference Laboratory, V.A. Hospital, Batavia, N.Y. 2. Data on file, Bristol Laboratories.

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THE NATURAL HISTORY OF ACQUIRED AORTIC VALVULAR DISEASE

Harry T. Harper, Jr., M.D., *Augusta*

THE TERM, "Natural History of a Disease," implies the clinical course of an untreated human ailment. Familiarity with the natural history of acquired aortic valvular disease is important so that the physician can adequately and honestly advise when surgery is or is not indicated for this condition.

Around 45% of the cases of active rheumatic fever with carditis will present evidence of aortic valvulitis. Around 80% of the cases of active aortic valvulitis progress immediately to persistent aortic regurgitation, and the murmurs of aortic involvement are transient in about 20% of the cases. Rheumatic carditis is associated with polyarthritis in about 61% of the cases, with subacute rheumatism in around 35-40% of the cases, and chorea in only 20% of the cases.

From 25% to 40% of adults with rheumatic valvular disease give no history of acute rheumatic fever in childhood. In 80% of the cases of pure aortic stenosis, the initial rheumatic attack was subclinical.

The frequency distribution of etiologies of aortic regurgitation is as follows: Rheumatic 67%, Leutic 19%, Atherosclerotic 7%, Bacterial Endocarditis 2%, Others (congenital bicuspid valve, dissecting aneurysm, hypertension) 5%.

In dominant rheumatic aortic regurgitation the average life expectancy is from 20 to 30 years from the time of diagnosis. The outlook depends on two items largely—the size of the left ventricle and the degree of peripheral signs. If the left ventricle is observed to be progressively enlarging, the outlook is bad. If only the murmur of aortic regurgitation is heard, the prognosis is good. If peripheral signs are present (wide pulse pressure, collapsing pulse, capillary pulse, etc.), the outlook is graver.

In luetic aortic regurgitation the prognosis is much worse. Without antileutic therapy the average life span from the time the murmur is first heard is around 24 months. Even with penicillin therapy the life span is only around 47 months.

Aortic stenosis is largely due to three etiologies—congenital, rheumatic, and sclerotic; but brucellosis or other infections may rarely produce aortic valvulitis. In many instances rheumatic and sclerotic factors are combined. Most pathologists believe that about 75% of the cases of aortic stenosis are due to rheumatic valvulitis, and as the individual ages, calcium is frequently deposited in the site of previous inflammation and scarring.

The average age at death in patients with dominant aortic stenosis is 55 to 65 in males and about ten years younger in females. "Sudden Death" due to ventricular asystole or ventricular fibrillation occurs in around 18% of severe cases of aortic stenosis. Subacute bacterial endocarditis occurs in about 10% of the cases. According to Wood, the spectrum of cases of aortic stenosis clinically varies as follows: (1) Mild cases, evidenced by a systolic murmur and thrill, an aortic ejection click, a closely split or single second sound and slight left ventricular hypertrophy usually present no symptoms for 20-30 years. (2) Moderately severe cases, manifested by an altered peripheral pulse, a delayed aortic closure, and moderate left ventricular hypertrophy on x-ray and by ECG get into difficulty in ten to 20 years. (3) Severe cases will all physical signs, an anacrotic pulse, paradoxical splitting of the second sound, and marked left ventricular enlargement have prominent trouble in five to ten years.

The three complications which indicate a poor prognosis are syncopal attacks, anginal pain, and congestive heart failure. When these are combined with progressive left ventricular enlargement, the outlook is gloomy. Webster in reporting 1,020 cases of aortic stenosis stated that of those who were symptom free, 51% survived for ten years; of those with angina pectoris, 28% survived ten years; and of those with congestive heart failure, only 6% survived ten years. Consequently, patients with aortic stenosis must be definitively evaluated for cardiac surgery before combinations of these complications occur and should ideally be considered for surgery at the onset of such complications. On the other hand, such patients must not be submitted to surgery too soon, because at the present time, we obviously do not have the ideal prosthetic valve or the optimal surgical mortality and morbidity rates.

Medical College of Georgia

Prepared at the request of the Committee on Professional Education of the Georgia Heart Association.

MALPRACTICE LIABILITY OF ATTORNEYS

John L. Moore, Jr., *Atlanta*

A NOVEMBER, 1966, decision of a Connecticut court held an attorney liable in the following circumstances. A woman retained an attorney to prepare a Will leaving her property to her children. The attorney drew such a Will and had it signed by the testatrix. Unfortunately, the attorney prepared a Will which lacked the required number of witnesses. The client died and the children presented the Will for probate. The Will was denied probate and the children lost their legacies. The Connecticut court held that the attorney was liable to pay the children the amount they could show they had lost by his negligence.

Exoneration for Attorneys

A November, 1966, decision of the Court of Civil Appeals of Texas, however, exonerated attorneys in the following circumstances. The client fell over a television cable on the sidewalk in front of a store in a shopping center. She retained the defendants to prosecute her suit against someone for damages. In the circumstances the attorneys might have chosen to sue the owner of the shopping center, the television station which owned the television cable, or the Merchants Association which represented all of the tenants in the center which organization had sponsored and arranged for the promotional activities on account of which the television cable was present on the sidewalk.

The Texas attorneys chose to sue only one defendant, the Association of Merchants operating the center. That suit was lost and no appeal was taken.

The client then sued the attorneys for malpractice. Her case was primarily buttressed by the testimony of an attorney from another town that he thought it would be standard practice to sue all three defendants if there was any doubt as to which one might be responsible. The Texas court reviewing the case observed that the attorney witness for the plantiff in the malpractice suit practiced law in a distant and much smaller town than El Paso, in which the incident had occurred, and the suit had been filed against the Merchants Association. The court, therefore, ruled that the testimony of the plaintiff's attorney witness was not entitled to any weight. As a result, the defendant attorneys in the Texas case won the malpractice suit.

Comments

It is rather disturbing to an attorney to read of at least two reported cases in one month against attorneys for malpractice. One had thought that malpractice cases were entirely against physicians and dentists. However, perhaps a less superficial comment is in order. The Connecticut case reminds one of a physician employed to amputate a gangrenous leg who negligently takes off the good leg. One would simply observe that the physician would probably not contest the claim while the attorneys are so unused to malpractice actions against them that the Connecticut attorney did contest it.

The Texas situation is harder to analogize. One could imagine a surgical case in which the surgeon had the choice of different procedures for the same indicated condition. The surgery had a bad result and the patient brought in a physician from a smaller town 400 miles away to testify that he would have performed one of the other possible procedures. It is quite easy to see that the patient might well lose such a malpractice claim.

In any event, perhaps physicians who read this page may take some comfort in the fact that even attorneys are now having to face their clients across the table in court.

The cases commented upon are Licata v. Spector, 26 Conn.Sup. 358, 225 A.2d 28 (1966), and Cook v. Irion, 409 S.W.2d 475 (Ct.App.Tex. 1966).

Suite 1220
C & S Bank Building

Prepared at the request of The Medical Association of Georgia. Mr. Moore is a member of the firm of Alston, Miller & Gaines, General Counsel to The Medical Association of Georgia.

NEW MEMBERS OF THE MEDICAL ASSOCIATION OF GEORGIA

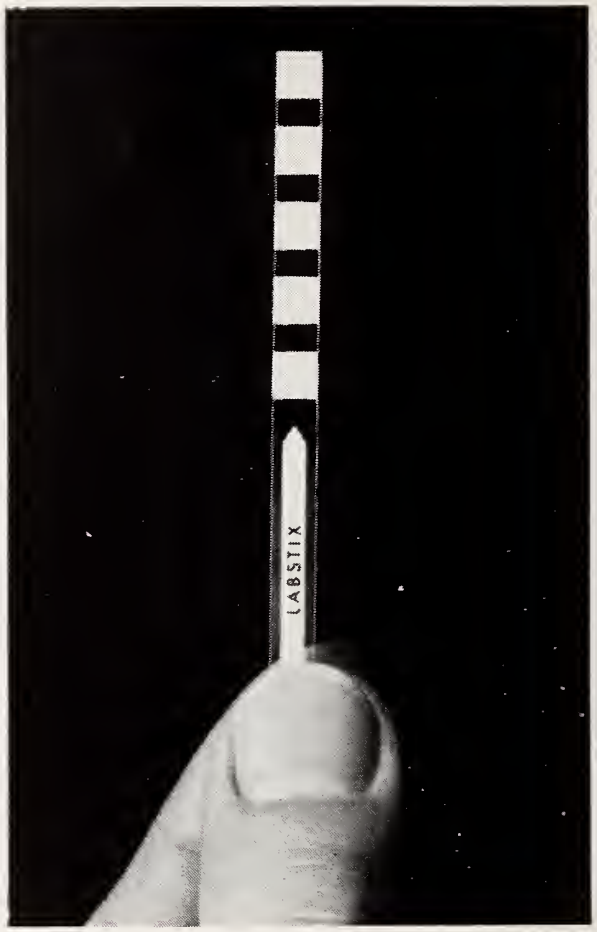
Ashford, A. W. Active—Walton	333 Alcova Street Monroe, Georgia 30655
Battle, Gerald L. Active—Fulton	1365 Clifton Road, N. E. Atlanta, Georgia 30322
Collier, Henry M., Jr. Active—Georgia Medical	900 W. Broad Street Savannah, Georgia 31401
Dahlstrom, Sigurd E. Active—Floyd	14 Hospital Circle Rome, Georgia 30161
Edgens, Jack R. Active—Walker-Catoosa-Dade	Kitchens Clinic Lafayette, Georgia 30728
English, Inman C. Active—Peach Belt	212 Hospital Drive Warner Robins, Georgia 31093
Fillingim, David W. Active—Georgia Medical	2 Medical Arts Center Savannah, Georgia 31405
Hajosy, Elaine L. Active—Floyd	710 Turner McC 11 Blvd. Rome, Georgia 30161
Hatcher, Robert A. Associate—Muscogee	Box 2299 Columbus, Georgia 31902
Hullender, B. N. Active—Walker-Catoosa-Dade	210 LaFayette St. Ringgold, Georgia 30736
Lindsay, John P. Active—Southeast Georgia	Georgia State Prison Reidsville, Georgia 30453
Nelson, Alvah J., III Active—Troup	City-County Hospital LaGrange, Georgia 30240
Pettit, Manson B. Active—Thomas-Brooks	Pinetree Blvd. Thomasville, Georgia 31792
Rosengart, Carl L. Active—Georgia Medical	2 Medical Arts Center Savannah, Georgia 31405
Sassos, George P. Active—Southeast Georgia	P. O. Box 257 Mount Vernon, Georgia 30445
Schulze, Richard R. Active—Georgia Medical	701 Abercorn Street Savannah, Georgia 31401
Smith, Amos A. Active—Troup	Franklin, Georgia 30217

CONFERENCE ON MEDICAL EDUCATION HELD IN MARCH AT CALLAWAY GARDENS

On March 3-5, 1967, a Conference on Medical Education was held at Callaway Gardens with representatives from the Medical Association of Georgia, Emory University School of Medicine, and the Medical College of Georgia participating in the event.

Group discussions included: (1) Combining Formal Premedical and Medical Education; (2) The Place of the Internship and Residency; (3) The Primary Physician; and (4) The Control of Specialization.

Out of state consultants were Franklin G. Ebaugh, Jr., M.D., Dean, Boston University School of Medicine, Boston; John C. Nunemaker, M.D., Secretary, AMA Internship Review Committee, Chicago; William R. Willard, M.D., AMA Council on Medical Education, Chicago; and Paul A. Ebert, M.D., Associate Professor of Surgery, Duke University Medical Center, Durham.



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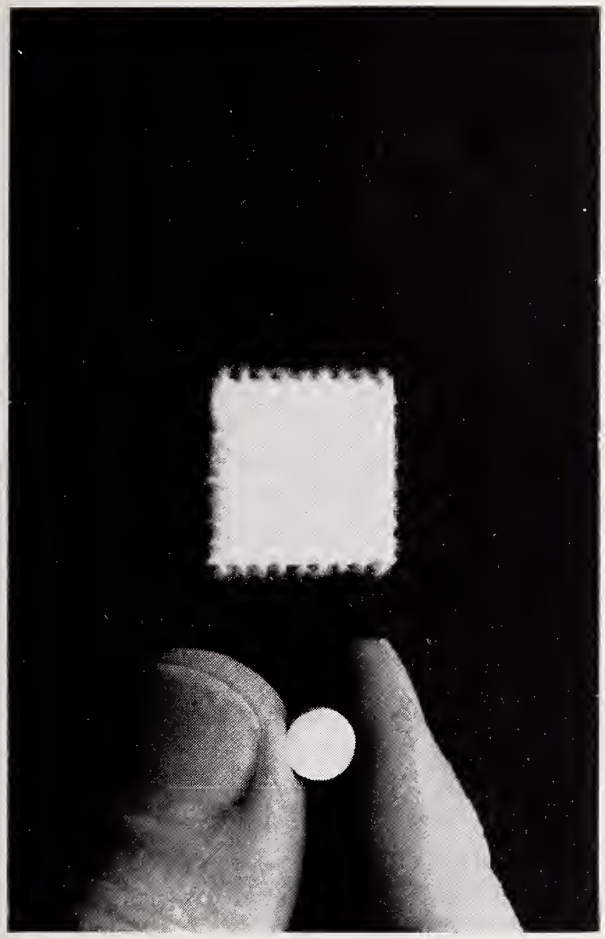

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PHARMACEUTICAL MANUFACTURERS ASSOCIATION ELECTS NEW CHAIRMAN OF THE BOARD

Walter A. Munns, Chairman of the Board of Smith Kline & French Laboratories in Philadelphia, was elected to a one-year term as Chairman of the Board of the Pharmaceutical Manufacturers Association, succeeding Lyman C. Duncan, vice president for medical affairs of the American Cyanamid Company, Pearl River, New York.

Munns was elected at Boca Raton, Florida, at the conclusion of the Washington-based association's ninth annual meeting, held March 31, 1967.

Munns has been associated with the prescription drug industry for 37 years, beginning his career with Smith Kline & French as a member of the medical promotion staff. In 1945, he became Vice President in charge of medical promotion and five years later was elected to the firm's board of directors. He subsequently served as Smith Kline & French's Executive Vice President, President, and last year was elected Chairman of the Board.

Munns attended the Wharton Evening School of the University of Pennsylvania and the Harvard Graduate School of Business Administration.

C. Joseph Stetler, full-time president of PMA, announced that E. Claiborne Robins, president of A. H. Robins Company, Inc., of Richmond, Virginia, is PMA's new Chairman-Elect. Robins, a registered pharmacist who attended the University of Richmond and the Medical College of Virginia, has been actively associated in the management of the Robins firm since 1933, becoming President in 1936. He is a member of both Phi Beta Kappa and Omicron Delta Kappa.

New members elected to the association's 28-member board of directors were W. H. Conzen, President of Schering Corporation, Bloomfield, New Jersey; V. D. Mattia, M.D., President of Hoffmann-LaRoche, Inc., Nutley, New Jersey; Daniel C. Searle, President of G. D. Searle & Co., Chicago, Illinois; Austin Smith, M.D., Chairman of the Board of Parke, Davis & Company, Detroit, Michigan; and Foster B. Whitlock, Chairman of the Board of Ortho Pharmaceutical Corporation, Raritan, New Jersey, and a member of the Executive Committee of the board of directors of Johnson & Johnson, New Brunswick, New Jersey.

BAN ON BRANDS—A BODY BLOW

There is certainly room for generic drugs. But the effort to curb the branding of all drugs would be a disastrous body blow to the public. Countless research efforts, conducted at heavy expense both in money and manpower, come to nothing. Others produce valuable but specialized drugs, needed and used by but a few people who would die without them. The successful drugs in wide use must carry the costs. There is no other way. A trade name is the producer's guarantee of quality. And it rewards research and development which mean help to sufferers from the endless ailments which plague mankind. Why put a brake on medical progress—the road to ever better health.—Editorial in *St. Louis County Medical Society Bulletin* (32:5), February 18, 1966.

MENTAL HEALTH PAGE

BEHAVIORAL THERAPY*

Stewart L. Wiggins, Ph.D., *Augusta*

In the first part of this series on Behavioral Therapy (April, 1967) the relationship of learning and conditioned emotional responses to maladaptive behaviors was discussed from the standpoint of the behavioristic position in regard to psychotherapy, and the question of methodology was mentioned. This article will be an attempt to expand on current methods employed and also touch on some aspects of physiological assessment of one specific technique employed at the Medical College of Georgia.

Owing to the expanding interest and application of learning principles in dealing with neurotic and psychotic disorders, various systems of therapy have evolved which make use of widely differing techniques or models, all of which are appropriately enough called conditioning therapies, but which nevertheless may bear little resemblance to each other in terms of specific techniques employed. However, one feature common to all of these therapies is that they systematically employ some particular learning principles in modifying human behavior.

Models

Wolpe on the basis of psychological test data and interviews formulates "anxiety hierarchies" which consist of a graduated series of anxiety producing situations and begins introducing these during hypnosis or a state of deep muscular relaxation. The least emotionally arousing situations are dealt with in early therapy sessions and only as anxiety is reduced to these situations are the more disturbing stimuli presented. This leads to reciprocal inhibition whereby "responses inhibitory to anxiety are caused to occur in the presence of anxiety stimuli to weaken the bond between these stimuli and the anxiety." The interested reader may consult Wolpe's book (1958) *Psychotherapy by Reciprocal Inhibition* for a more thorough description of the technique. Others such as Hussain have used a similar model and a description of this work is presented in Wolpe, Salter, and Reyna's book *The Conditioning Therapies* (1964) along with other therapies and experimental works.

An article by Albert Bandura (*Scientific American,* March, 1967) offers a description of several modeling procedures by behavior therapists. Operant conditioning techniques centering upon appropriate reinforcement of selected behaviors are reported from the works of Butterfield, Harris, Wolf, and Baer. An interesting study with schizophrenic children is discussed by Lovaas, where a modeling procedure involving reinforcement (reward) for successive approximations in mutes was devised and Lovaas has also increased desirable social patterns of behavior and numerous skills in schizophrenic children through his modeling techniques. These studies provide the reader with an excellent overview of the many aspects of the methodologies involved in behavioral therapy.

Measurement and More Research

In our work in behavioral therapy (a modification of Wolpe's technique) in the Psychiatry Department of the Medical College of Georgia, one of the important considerations under investigation is assessment of physiological activity during behavioral therapy. In this regard, continuous monitoring of such physiological parameters as heart rate, respiration, and galvanic skin responses are obtained on patients during behavioral therapy sessions and significant decrements are found in measuring these responses (as great as 40% decreases with some patients for heart rate). The functions do tend to fluctuate with therapist involvement, or emotional arousal in respect to anxiety evoking stimuli but the overall effect is quite marked.

In conclusion there is an obvious need for additional research concerning all of the variables involved in this approach, and in spite of being impressed by the behavioral and physiological changes which can be achieved through the above techniques, we believe there are important therapist-personality factors which contribute to behavioral change even within this "controlled" behavioristic approach.

Medical College of Georgia

* *Second of two parts.*

Prepared at the request of the Sub-committee on Mental Health of the Medical Association of Georgia.

COMMITTEE ON MEDICINE AND RELIGION

The Medical Association of Georgia Committee on Medicine and Religion is composed of Randolph A. Malone, M.D., Thomasville; Joseph S. Cruise, M.D., Atlanta; Sidney Isenberg, M.D., Atlanta; Curtis G. Hames, M.D., Claxton; William A. Hopkins, M.D., Atlanta; John B. Rabun, M.D., Savannah; and Jasper T. Hogan, Jr., M.D., Macon, *Chairman*.

History

The Committee, one of the youngest components of the AMA/MAG arm, feels its objectives have generally been poorly understood and its cool reception on the part of the profession is for the most part due to this fact—that its basic objectivity has been misconstrued.

The object of the Committee on Medicine and Religion is *simply* to strive for a better working relationship between the medical profession and the clergy, thereby creating the betterment of treatment for the "whole man."

Today's trend toward specialization has resulted in a more mechanical approach to man's ills, leaving out, for the most part, the art of medicine. At a time when psychosomatic ills abound, the art of medicine needs to be not only restored, but rejuvenated. In the partitioning of the art of medicine, one of the most important elements is brought to light: that is, the major role played by the spiritual side of the human in his recovery. This one factor more than anything else necessitates the formation of the Committee on Medicine and Religion. When your local society requests your cooperation in its program, it is our fervent hope that you will personally participate, in order that not only will your patient benefit, but you yourself will be further enriched.

The MAG Committee on Medicine and Religion met on January 19, 1967, to formulate plans for regional organization which in turn will be responsible for the local county level planning. A booth on Medicine and Religion, sponsored by the AMA and your MAG Committee on Medicine and Religion, will be in the scientific exhibit section at the 113th Annual Session of the MAG to be held April 30-May 1-2, 1967, at the Marriott Motor Hotel, Atlanta, Georgia. Please stop by the booth at your convenience.

From further planning, there evolved an anticipated workshop composed of all county representatives to the MAG Committee on Medicine and Religion as a means of orientation specifically directed to the basic purpose of our program. To date, only 13 out of 79 county medical societies have Medicine and Religion programs, and only four societies have formulated programs for continued planning along this line. There are, as of this writing, 50 representatives to the MAG Committee on Medicine and Religion from the 79 county medical societies.

The chairman of this committee, having just returned from the first AMA meeting of state chairmen, is seriously desirous that Georgia not only do its part in this program, but make a favorable showing on a national level.

Jasper T. Hogan, Jr., M.D.
Chairman, MAG Committee on Medicine and Religion

ETHICAL RESPONSIBILITIES IN PRESCRIBING DRUGS AND DEVICES

It is unethical for a physician to be influenced in the prescribing of drugs or devices by his direct or indirect financial interest in a pharmaceutical firm or other supplier. It is immaterial whether the firm manufactures or repackages the products involved.

It is unethical for a physician to own stock or have a direct or indirect financial interest in a firm that uses its relationship with physician-stockholders as a means of inducing or influencing them to prescribe the firm's products. Practicing physicians should divest themselves of any financial interest in firms that use this form of sales promotion. Reputable firms rely upon quality and efficacy to sell their products under competitive circumstances, and not upon appeal to physicians with financial involvements which might influence them in their prescribing.

Prescribing for patients involves more than the designation of drugs or devices which are most likely to prove efficacious in the treatment of a patient. The physician has an ethical responsibility to assure that high quality products will be dispensed to his patient. Obviously, the benefits of the physician's skill are diminished if the patient receives drugs or devices of inferior quality.

Inasmuch as the physician should also be mindful of the cost to his patients of drugs or devices he prescribes, he may properly discuss with patients both quality and cost.

Adopted by the Judicial Council, American Medical Association, March 12, 1967.

ABSTRACTS BY GEORGIA AUTHORS

Yeh, Thomas J., M.D.; Anabtawi, Isam N., M.D.; Cornett, Victor E., M.D.; White, Arthur, M.D.; Stern, Walter H., M.D., and Ellison, Robert G., M.D., Medical College of Georgia, Augusta, Ga., "Bacterial Endocarditis Following Open-Heart Surgery," The Annals of Thoracic Surgery 3:29-36(January)1967.

Four hundred consecutive cases of open-heart surgery at the Medical College of Georgia were analyzed for postoperative bacterial endocarditis.

Past history of bacterial endocarditis and positive culture from pump equipment before bypass did not predispose to postoperative infection. In two of 19 patients with positive cultures from the pump oxygenator obtained after bypass, clinical manifestations ensued.

The amount of foreign body required to effect correction of the lesion seemed to have an important influence on the development of bacterial endocarditis. When direct repair was effected, the incidence was 1.3%. With use of prostheses other than ball valves, it was 3.5%. With Starr-Edwards prostheses, the incidence was 9.5%. Nearly half of the infections were due to *Staphylococcus* and could theoretically have been prevented by methicillin or oxacillin prophylaxis. Ten of 19 infections were due to other organisms; most of them were gram-negative bacilli.

Late infection occurred in four cases, presumably from endogenous sources. All responded well to antibiotics.

Of a total of 18 cases, nine are apparently cured. Of the nine dead, two were apparently cured of infection and died of other causes. Although mortality for infected ball-valve prostheses is high, some can be salvaged by proper antibiotic therapy and occasional removal and replacement of the prosthesis.

Rieser, Charles, M.D., Dept. of Surgery, Emory University School of Medicine, Atlanta, Ga., "Diagnostic Evaluation of Suspected Genitourinary Tract Injury," JAMA 199:714-719(March6)1967.

In suspected injuries of the urinary tract, complete assessment of the site and degree of injury should be promptly undertaken. Appropriate methods of diagnosis by x-ray examination and instrumentation are presently available permitting an orderly sequence of diagnostic steps, affording a high degree of accurate estimation of the extent of damage. Injuries of the kidney and ureter should be studied by means of excretory urography, either the conventional or infusion technique, as preliminary steps. In the event precise diagnosis has not been made, cystoscopy and retrograde pyelography should unhesitatingly be performed. Renal angiography offers clear x-ray visualization of both the vasculature and parenchyma of the injured kidney and, where facilities are available, should be employed. Retrograde cystography and urethrocystography are presently the most acceptable methods of appraisal of the disruption of the urinary bladder and urethra.

Laws, Edward R., Jr., M.D.; Morales, Francisco Ramos, M.D.; Hayes, Wayland J., Jr., M.D., and Joseph, Charles Romney, M.S., Toxicology Section, Technology Branch, CDC, Atlanta, Ga., "Toxicology of Abate in Volunteers," Environmental Health 14:289-291(February)1967.

Control of the breeding of *Aedes aegypti* mosquitoes in containers used for the collection and storage of drinking water is essential for the eradication of this species from many areas of the world. Biological evaluation has demonstrated that Abate (0,0,0′,0′-tetramethyl 0,0′-thiodi-*p*-phenylene phosphorothioate) produces effective larvicidal action against *A. aegypti* for at least five weeks when added to barrels of drinking water at the rate of 1.0 ppm. On the basis of the results of studies in animals (Gaines, et al., Arch. Environ. Health, *14*:283-288, 1967) it was felt that a toxicological evaluation of Abate in humans could be conducted with safety. Volunteers tolerated a dosage of 256 mg/man/day for five days or 64 mg/man/day for four weeks without clinical symptoms or side effects attributable to Abate and without detectable effect on red blood cell or plasma cholinesterase.

Martin, J. D., Jr., Dept. of Surgery, Emory Univ. School of Medicine, Atlanta, Ga., "Problems of Wound Infections," Surgery, Gynecology and Obstetrics 124:590-592 (March)1967.

Numerous factors play an important role, none of which can be considered at the expense of careful attention to all minute details. The combined teamwork of the entire medical personnel is essential, if one can expect a reduction in the continuing high rate of wound infections. Realizing the extreme degree that is necessary to produce the germ-free atmosphere and the impossibility of keeping the surgical patients in such a state, one must accept a certain number of infections. These, however, must and can be kept at a minimum.

Jasnau, Kenneth F., M.S.S., Milledgeville State Hospital, Milledgeville, Ga., "Individualized Versus Mass Transfer of Nonpsychotic Geriatric Patients from Mental Hospitals to Nursing Homes with Special Reference to the Death Rate," Journal of the American Geriatrics Society 15:280-284(March)1967.

In the State of Georgia, during 1965, an opportunity was provided to observe the effects of transfer or relocation of geriatric mental-hospital patients. For those who were mass-moved within the hospital with little or no preparation, the death rate increased 35% when compared with the death rate for the same period one year before relocation. The nursing-home placement program for nonpsychotic geriatric patients was initiated early in 1965; the death rate at the end of the first year for this group of patients was only 5.3%. This program, however, was planned; it involved educational programs at all levels of hospital and nursing-home staffs and personnel, and included the psychologic and emotional preparation of the patient for the transfer through social casework services. Patients who refused to leave the hospital were given another opportunity within a month. Those who were undecided were offered continuing casework services with the objective of helping them reach a decision. No patient was moved against his will. The results support the conclusion that adequate preparation can reduce the trauma associated with change for the older patient.

Symbas, Panagiotis N., M.D.; Abbott, Osler A., M.D., and Ende, Norman, M.D., Dept. of Surgery, Emory Univ. School of Medicine, Atlanta, Ga., and the Dept. of Pathology, Vanderbilt Univ., Nashville, Tenn., "Surgical Stress and Its Effects on Serum Cholesterol," Surgery 61:221-227(February)1967.

Previous studies have shown that physical, physiologic, mental and emotional stresses and variation of diet are accompanied with variation of serum cholesterol. The present study was undertaken to evaluate the effect of surgical stress and low calorie, pure carbohydrate postoperative diet on the serum cholesterol.

Serial cholesterol determinations were performed on 20 patients before and after various surgical procedures. All 20 patients had a decrease in serum cholesterol concentration postoperatively. The average maximal decrease in cholesterol was 60 mg. per 100 ml. and occurred on the first or second day following surgery.

In three of five patients in whom hourly serum cholesterol determinations were done during surgery, there appeared an initial slight elevation of cholesterol which was followed with the expected postoperative decrease. Two other patients who also had hourly cholesterol determinations had slightly lower concentrations during surgery than the preoperative control value. All five of these patients had the expected more marked decrease in serum cholesterol one or two days later.

The effect of the postoperative regimen of intravenous feeding with 5% dextrose in water and saline solutions upon serum cholesterol was studied in five control patients. This dietary regimen on the other patients studied did not produce a significant decrease in serum cholesterol concentration.

Some of the factors and mechanisms which may contribute to the observed postoperative decrease in cholesterol concentrations have been briefly discussed.

DEATHS

James Clark Anderson, 87, Macon's oldest practicing physician, and for many years Chief of Staff of Macon Hospital, died March 17, 1967, at his home in Macon.

He was graduated from Emory University School of Medicine in 1909, and interned at Grady Hospital in Atlanta. He came to Macon in 1912, and was in active practice until a few weeks ago.

Dr. Anderson was a past president of the Bibb County Medical Society, a member of the Volunteer Medical Corps in World War I, a charter member of the Macon Lions, and a member of the Phi Chi Medical Fraternity.

In 1962, the Medical Association of Georgia awarded him the certificate of distinction for 50 years in the practice of medicine, and the following year, the House of Delegates of the association named Dr. Anderson "Georgia General Practitioner of the Year."

Dr. Anderson was married to the former Miss Annie Gantt of Macon. They observed their 50th wedding anniversary in 1966.

He was a member of First Presbyterian Church.

Survivors include three daughters, Mrs. Bernard B. Ramsey, of Sparta, New Jersey, Mrs. John D. Comer and Mrs. Frank C. Jones, both of Macon; and six grandchildren.

Albert Nathan Dykes, 77, died March 12, 1967, in Columbus after a long illness. Dr. Dykes was a 1912 graduate of Emory University School of Medicine. He spent three years at Mount Sinai Hospital in Maryland and also studied at Johns Hopkins University Hospital.

In 1915, Dr. Dykes was house physician at Guys Hospital in London and at a war hospital in Belgium working with Dr. William Osler and the American Red Cross.

He began his Columbus practice in 1916, but joined the U. S. Army in 1917 where he served as a captain. He spent one year at base hospitals in the U. S. and until July of 1919 in Europe. After World War I he reopened his local practice and was exceedingly active in medical, civic and social activities.

He was a Past President of the Muscogee County Medical Society and former Chief of Staff at The Medical Center. Dr. Dykes was a member of the Rotary Club, The Big Eddy Club and the Country Club of Columbus. He was a member of First Baptist Church.

He is survived by his widow, Mrs. Margaret Bradley Dykes; a daughter, Mrs. Frank Kibler, and a son, Eugene T. Dykes; both of Atlanta.

Howard Hailey, an Atlanta dermatologist and Associate Professor at Emory University Medical School, died March 26, 1967, in a local hospital.

A native of Hartwell, Dr. Hailey, 69, was a graduate of Emory University and Emory Medical School. The son of Dr. W. I. Hailey, a former mayor of Hartwell, he was president of the Aesklepios honor society and Theta Kappa Psi medical fraternity while at Emory.

Dr. Hailey began his medical practice in Atlanta in 1922, and was for many years visiting dermatologist for all larger Atlanta hospitals.

Elected president of the Fulton County Medical Society in 1941, Dr. Hailey was largely instrumental in getting support for the erection of Fulton County Medical Building on West Peachtree Street during the same year.

An associate clinical professor at Emory University Medical School, he served as president of the Emory University Medical Alumni Association in 1939-1940.

Dr. Hailey was chairman of the Dermatological Section of the Southern Medical Association in 1939, and was a charter member of the Academy of Dermatology and Syphilology and the Society for Investigate Dermatology. He was also a member of the American Dermatological Association.

Dr. Hailey discovered a cure for a disease known as familial bognign pemphigus. For his work on the treatment of this disease he received the Fischer and Hardman Award in 1940.

Dr. Hailey was a member of the Cathedral of St. Philip and the Piedmont Driving Club.

Survivors include his wife, the former Helen McClure; two daughters, Mrs. Montague L. Boyd, Jr. and Mrs. Charles Bowen, and a son, Howard Hailey, Jr., all of Atlanta, and a brother, Frank Hailey of Athens.

SOCIETIES

J. Frank Walker, Atlanta radiologist, was the featured speaker at the March meeting of the **Muscogee County Medical Society** meeting. Dr. Walker, Speaker of the Medical Association of Georgia House of Delegates, spoke on medical ethics.

H. Curtis Wood, Jr., M.D. of New York City addressed the members of the **Richmond County Medical Society** at their February meeting. Dr. Wood, medical consultant for the Association for Voluntary Sterilization, spoke on its facts and myths. A leading birth control authority, Dr. Wood has lectured to medical societies, medical students and civic groups across the country.

Seventh District Medical Society met April 5, 1967, at Rome as the guests of **Floyd County Medical Society.** Scientific presentations were given by Alfonso H. Holguin, M.D., Chief, Tuberculosis Program, Communicable Disease Center, Atlanta, "The Overall View of Tuberculosis"; Sidney Dressler, M.D., Special Assistant Chief, Tuberculosis Control Section, CDC, Atlanta, "The Prophylaxis of Tuberculosis"; and John A. Sbarbaro, M.D., Chief, Tuberculosis Control, Denver, Colorado. A panel discussion followed.

PERSONALS

Second District

Psychiatrist, **Otis J. Woodard, Jr.,** Albany, spoke to the Lake Drive Elementary School PTA, Tifton, in March. Dr. Woodard chose as his subject, "How You Can Improve Your Child's Mental Health."

Third District

Jack C. Hughston, Columbus, has been reappointed a member of the Committee on Medical Aspects of Sports of the American Medical Association.

Fifth District

Emory University's Medical Alumni Association has given its annual award of honor to **Arthur P. Richardson,** Dean of Emory University School of Medicine, Atlanta, and has elected **Charles D. Hollis, Jr.** of Albany, President. Dr. Richardson was cited for his "distinguished service to the medical profession." Other officers elected were **Charles Underwood,** Marietta, Vice-President; **J. Hagin Baskin,** Atlanta, Secretary-Treasurer; and **Harrison L. Rogers, Jr.** and **William Dowda,** both of Atlanta, Trustees.

Harry L. Williams, Emory University School of Medicine Professor of Pharmacology, Atlanta, spoke in March to a journalists seminar. His topic was "Moral Dilemmas of Medical Development." Dr. Williams, a recognized drug authority, detailed a number of other problems inherent in a dangerously increasing "abuse" of drugs in America.

Dr. and Mrs. **Robert I. Lowenberg,** Atlanta, recently returned from Los Angeles and San Francisco, California, where Dr. Lowenberg attended meetings in Los Angeles of the American College of Cardiology, where a three-day seminar was held.

Keynote speaker at the final report meeting of the Metropolitan Area Heart Fund Campaign in Atlanta in February was **Elbert Tuttle, Jr.,** Atlanta. Dr. Tuttle spoke on the use of the artificial kidney at the Atlanta Kidney Center. The kidney center is one of the many programs in which the Georgia Heart Association is concerned.

C. Daniel Cabaniss, Atlanta, was the guest speaker at the Hartwell Lions Club meeting held in February. Dr. Cabaniss directed his talk to the work of the Heart Fund.

Elizabeth Adams, Atlanta, the instigator of a new course in health education at Emory University, was the moderator for a panel composed of teen-agers over WSB February 22, 1967. The course at Emory covers problems of interest to teen-agers and was offered for the first time in the Fall of 1966.

William S. Hagler, Atlanta, Associate Professor of Ophthalmology at Emory University School of Medicine, was part of a team of two physicians which secretly flew to Cuba with the approval of the U.S. State Department to perform an eye operation on a 67-year-old American missionary being held by the Castro regime. Dr. Hagler and Harry Taylor, M.D., Virginia, flew from the U.S. to Spain and then to Havana to operate on the Rev. Herbert Caudill, a Baptist missionary from Virginia.

A "three party line" designed to improve the health of Georgia's school children is the goal of a recently formed professional group seeking to better medical communications between the child's family, his doctor and his school.

The group—designated as the Interagency Council on School Child Health—was formed following a recent meeting at the Medical Association of Georgia headquarters in Atlanta. Brought together at the initiative of **Ben P. Gilbert** of Gainesville, Chairman of the School Health Committee of the Georgia Academy of Pediatrics, the council is made up of representative members from both public and professional organizations dedicated to improving the general health of children.

The entire membership of the Medical Association's School Child Health committee attended the organizational meeting. Representing public health were **P. K. Dixon,** Chairman of the State Board of Health; **John H. Venable,** Director of the Georgia Department of Public Health, and **Elton S. Osborne,** the Health Department's Deputy Director.

Also attending the initial session were representatives of the State Department of Education, the State Department of Family and Children Services and the Georgia Dental Association.

J. Frank Walker, Atlanta, has been reappointed a member of the Council on Legislative Activities of the American Medical Association.

Ted F. Leigh, Atlanta, has been appointed to the Residency Review Committee for Radiology of the Council on Medical Education of the American Medical Association.

Fred L. Allman, Jr., Atlanta, has been appointed a member of the Committee on Exercise and Physical Fitness of the American Medical Association.

Seventh District

Richard A. Griffin, III, Cartersville, recently returned from a three-day trip to Houston, Texas, with other members of the Floyd W. McRae Society, composed of former chief residents at Atlanta's Piedmont Hospital. More than 30 members flew to Texas where they observed and learned medical techniques at various hospitals and medical schools.

Three Atlanta area doctors are members of a team of medical personnel who will spend 19 days administering to people of the Bolivian Andes. The trip is sponsored by the First Methodist Church, Carrollton. In addition to doctors and dentists from North and South Carolina will go **T. M. Martin** and **Harvery Beall,** Carrollton, and **Robert Shuler,** Atlanta.

Eighth District

Tom Parker of Douglas will join a People-to-People tour around the world beginning May 4, 1967. The program is conducted for an exchange of information and personal contact seeking to interpret American traditions and community life to citizens abroad.

Ninth District

Marcus Mashburn, Jr., Cumming, was among 123 physicians from the U.S. and foreign nations in Boston for an intensive post-doctoral course in OB-GYN under the auspices of Course for Graduates, Harvard Medical School. The meeting was held on March 13, 1967.

Tenth District

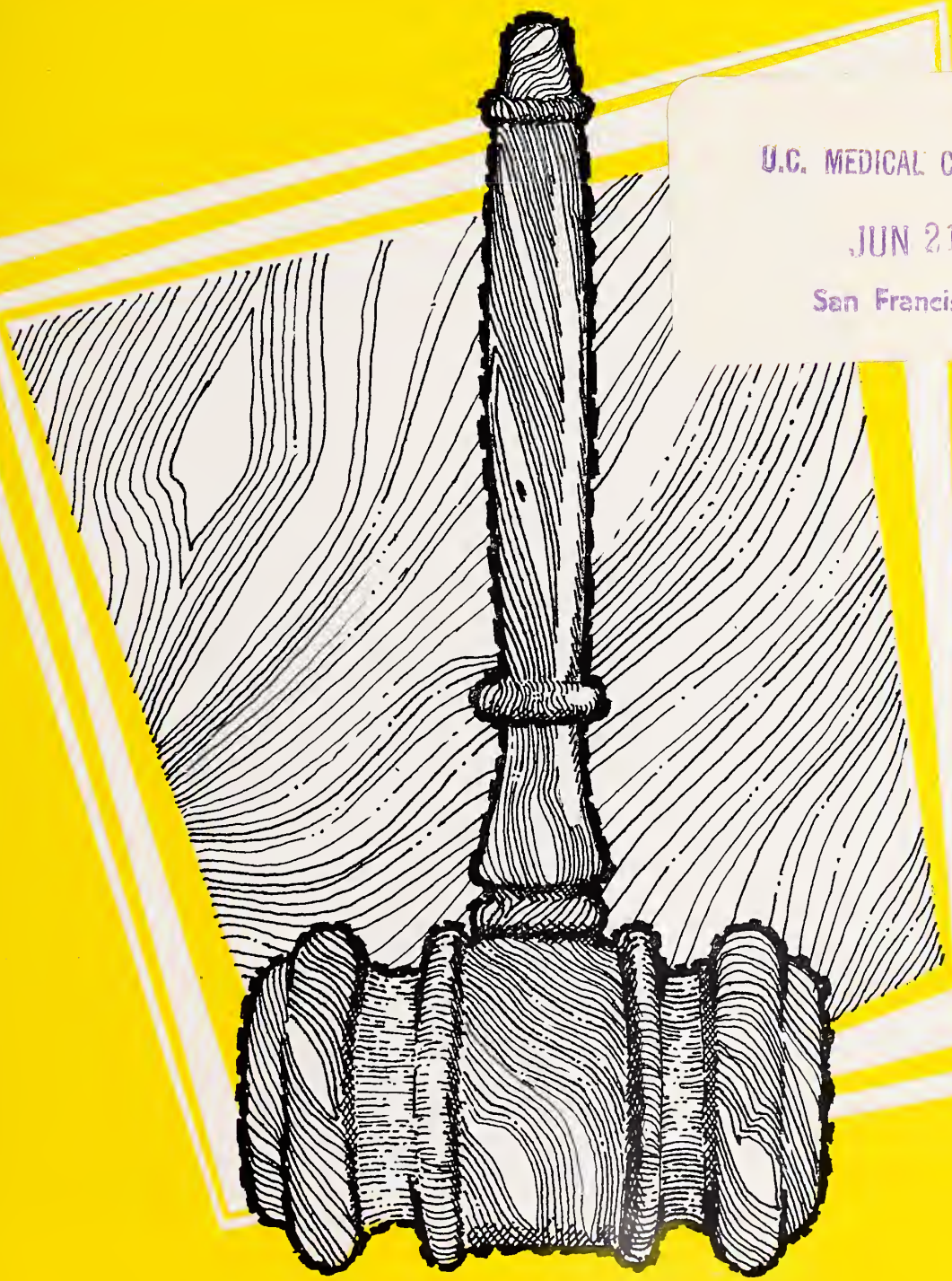
Two Medical College of Georgia faculty members participated in the Fourth Annual Atlanta Postgraduate Course on Fractures and Other Injuries held May 15-18. **Floyd E. Bliven, Jr.,** Professor and Chairman of Orthopedic Surgery, and **James W. Harkess,** Professor of Orthopedic Surgery, will preside and speak at the four day meet.

Raymond Ahlquist, Associate Dean of the Medical College of Georgia, Augusta, was the guest speaker in March at the Louisville Kiwanis Club luncheon meeting. Dr. Ahlquist's topic concerned the medical school.

Medical association of Georgia. Journal,

JOURNAL OF THE MEDICAL ASSOCIATION Georgia

JUNE / 1967



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113th Annual Session

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JOURNAL OF THE MEDICAL ASSOCIATION Georgia

FIRST SESSION, HOUSE OF DELEGATES

MONDAY, MAY 1, 1967

THE FIRST SESSION of the House of Delegates of the Medical Association of Georgia was called to order by Speaker J. Frank Walker, Atlanta, at 9:45 a.m., in the North Ballroom, Marriott Motor Hotel, Atlanta, Georgia, on May 1, 1967, in conjunction with the 113th Annual Session of the Medical Association of Georgia.

Speaker Walker announced that he had received a preliminary report of delegates' attendance from the House of Delegates Credentials Committee and that there was a quorum of over 40 members present and accounted for. A complete report made by the Credentials Committee on the attendance at the First Session of the House of Delegates follows:

Attendance

In a compilation of attendance taken from the official roll, 47 county medical societies were represented by their duly elected delegates or alternates. Twenty-seven county medical societies were not represented at this First Session. Of a total of 161 authorized delegates from their respective medical societies, the official roll showed 119 delegates present at this First Session.

BALDWIN: A. C. Martinez; BIBB: F. V. Kay, Charles R. White, J. G. Etheridge, Milton I. Jonson, Gordon W. Jackson, Clyatt W. James; BLUE RIDGE: Charles B. Watkins; BURKE: E. R. Hensley; CARROLL-DOUGLAS-HARALSON: J. Harvey Beall, Phil C. Astin, Martin L. Johnson; GEORGIA MEDICAL SOCIETY: Jules Victor, William H. Fulmer, Lee Howard, Jr., Irving Victor, John L. Elliott; CHATTAHOOCHEE: Rupert H. Bramblett; CHEROKEE-PICKENS: C. J. Roper; CRAWFORD W. LONG: M. A. Hubert, Donald L. Branyon; CLAYTON-FAYETTE: Wells Riley; COBB: Remer Y. Clark, T. J. VanSant, James H. Manning, Donald R. Rooney, Frederick K. Schmidt; DECATUR-SEMINOLE: Henry A. Bridges; DEKALB: Edwin H. McDowell, Luther Vinton, Z. V. Morgan, W. Frank Matthews, Glen McCormick; DOUGHERTY: D. Allen Turner, W. P. Rhyne, Laurence T. Crimmins; CAMDEN-CHARLTON: R. R. McCollum; EMANUEL: R. J. Moye; FLOYD: James H. Smith, Richard W. Leigh, A. Richard Gray; FULTON: William D. Logan, A. A. Rayle, Jr., Tully T. Blalock, Harrison L. Rogers, W. L. Curtis, J. Harold Harrison, Charles E. Todd, A. J. Crumbley, James P. Isaacs, Spencer S. Brewer, William W. Moore, Jr., J. Watts Lipscomb, J. D. Martin, F. William Dowda, Frank L. Wilson, J. G. McDaniel, Don Cathcart, Joseph L. Girardeau, J. Rhodes Haverty, W. Perrin Nicolson, III, John T. Godwin, J. Frank Walker, Linton H. Bishop, Jr., James A. Kaufmann, Robert E. Wells, Lamar B. Peacock, Fleming L. Jolley, Joseph S. Wilson, Neil Perkinson, John S. Atwater, Edwin C. Evans, L. Newton Turk, III, G. Lester Forbes, L. Harvey Hamff, Asa G. Yancey; GLYNN: C. A. Wilson, Jr., C. S. Britt, Bert H. Malone; HABERSHAM: Thomas N. Lumsden; HALL: Robert Anderson, B. S. Hardman, C. W. Whitworth; PEACHBELT: H. E. Weems, Jr.; JACKSON-BANKS: Emory W. Holloway; JEFFERSON: C. Roy Williams; MERIWETHER-HARRIS: J. W. Smith, Jr.; MITCHELL: J. C. Brim; MUSCOGEE: G. Bertling Smith, Jack McGee, Dan C. Newberry, Jack A. Raines; NEWTON-ROCKDALE: J. R. Sams; OCONEE VALLEY: George F. Green; POLK: Don Schmidt; RICHMOND: Cecil A. White, Jr., Robert C. McGahee, Preston D. Ellington, Julius T. Johnson, R. F. Galloway, William A. Fuller, John R. Fair, Daniel B. Sullivan, Henry D. Scoggins, Walter L. Shepeard; SOUTH GEORGIA: Fred C. Smith; SOUTHEAST GEORGIA: M. H. Whittle; SPALDING: Alex Jones; SUMTER: John H. Robinson, III; TAYLOR: E. C. Whatley; THOMAS-BROOKS: Robert T. Cain; TIFT: Carl S. Pittman, Jr.; TROUP: H. H. Hammett, Jr.; UPSON: T. A. Sappington; WALKER-CATOOSA-DADE: M. K. Cureton, Fred H. Simonton; WALTON: Alexander Ashford; WARE: F. E. David, L. C. Durrence; WASHINGTON: William Rawlings; WAYNE: J. W. Yeomans; WHITFIELD: R. T. Farrow, E. T. McGhee; WILKES: M. C. Adair.

Credentials and Tellers Committee

Speaker Walker announced the prior appointments of the House of Delegates Credentials Committee and appointed the Tellers Committee as follows:

CREDENTIALS COMMITTEE: Tully Blalock, Atlanta, Chairman; Preston Ellington, Augusta; and Hilt Hammett, LaGrange.

TELLERS COMMITTEE: Cecil White, Augusta, Chairman; J. R. Sams, Covington; and Rupert Bramblett, Cumming.

Reference Committees

Speaker Walker appointed the following House of Delegates Reference Committees:

REFERENCE COMMITTEE NO. 1: M. K. Cureton, LaFayette, Chairman; John Deal, Statesboro, Vice Chairman; Charles Todd, Atlanta, Secretary; D. Allen Turner, Albany; Francis Lindsey, Warner Robins; F. E. Davis, Waycross; and Spencer Brewer, Atlanta.

REFERENCE COMMITTEE NO. 2: Irving Victor, Savannah, Chairman; Earle E. Lewis, LaGrange, Vice Chairman; B. S. Hardman, Gainesville, Secretary; Edwin Evans, Atlanta; E. R. Hensley, Waynesboro; Gordon Jackson, Macon; and Frank Robbins, Hinesville.

REFERENCE COMMITTEE NO. 3: William Logan, Atlanta, Chairman; A. Richard Grey, Rome, Vice Chairman; Thomas Lumsden, Clarkesville, Secretary; James Craig, Milledgeville; F. R. Miller, Thomasville; Clyde Burgamy, Augusta; and Alex Jones, Griffin.

REFERENCE COMMITTEE NO. 4: Henry Bridges, Bainbridge, Chairman; John R. Fair, Augusta, Vice Chairman; Donald R. Rooney, Marietta, Secretary; Donald Branyon, Athens; Jack Raines, Columbus; E. T. McGhee, Dalton; and Frank Wilson, Atlanta.

REFERENCE COMMITTEE NO. 5: Charles White, Macon, Chairman; Z. V. Morgan, Decatur, Vice Chairman; William Moore, Atlanta, Secretary; Bert Malone, Brunswick; Fred Smith, Valdosta; Carl Pittman, Jr., Tifton; and Bill Purcell, Calhoun.

Approval of 1966 Minutes

To expedite the reading and adoption of the minutes of the 1966 Sessions of the House of Delegates held in conjunction with the 112th Annual Session of the Medical Association of Georgia meeting May 8-10, 1966, in Columbus, Georgia, the Chair entertained a motion that the minutes as published in the June, 1966 issue of the *Journal of the Medical Association of Georgia* be approved. On motion duly made and seconded, it was voted that these minutes be so approved as published in their entirety in the June, 1966, issue of the *JMAG*.

Annual Reports

Speaker Walker called for the Annual Reports of Officers, Council, Councilors and Vice Councilors, Association Committees and other reports, as introduced at this Session, which are listed below with the Reference Committees to which they were referred. The full report; the action by the Reference Committee; and the House of Delegates action is listed under the proceedings of the Second Session of the House of Delegates. (See pages 213 to 253.)

OFFICERS

President—Reference Committee No. 1
Immediate Past President—Reference Committee No. 1
First Vice President—Reference Committee No. 5
Second Vice President—Reference Committee No. 5
Secretary—Reference Committee No. 1
Treasurer—Reference Committee No. 3
Speaker of the House—Reference Committee No. 5
AMA Delegates—Reference Committee No. 5
AMA Alternate Delegates—Reference Committee No. 5

COUNCIL

Council of MAG—Reference Committee No. 1

COUNCILORS AND VICE COUNCILORS

First District Councilor—Reference Committee No. 5
Second District Councilor—Reference Committee No. 5
Third District Councilor—Reference Committee No. 2
Sixth District Councilor—Reference Committee No. 3
Seventh District Councilor—Reference Committee No. 3
Eighth District Councilor—Reference Committee No. 3
Ninth District Councilor—Reference Committee No. 1
Ninth District Vice Councilor—Reference Committee No. 1
Tenth District Councilor—Reference Committee No. 3
Bibb County Medical Society Councilor—Reference Committee No. 3
Cobb County Medical Society Councilor—Reference Committee No. 1
DeKalb County Medical Society Councilor and Vice Councilor—Reference Committee No. 1
Fulton County Medical Society Councilors—Reference Committee No. 5
Georgia Medical Society Councilor—Reference Committee No. 5
Georgia Medical Society Vice Councilor—Reference Committee No. 5
Muscogee County Medical Society Councilor—Reference Committee No. 2
Richmond County Medical Society Councilor—Reference Committee No. 3

ASSOCIATION COMMITTEES

Finance Committee—Reference Committee No. 1
Professional Conduct Committee—Reference Committee No. 1
Constitution and Bylaws Committee—Reference Committee No. 3
Annual Session Committee—Reference Committee No. 2
Traffic Safety Committee—Reference Committee No. 2
Crippled Children Committee—Reference Committee No. 4
Disaster Medical Care Committee—Reference Committee No. 2
Maternal and Infant Welfare Committee—Reference Committee No. 3
School Child Health Committee—Reference Committee No. 2
Hospital Activities Committee—Reference Committee No. 2
Nursing Liaison Committee—Reference Committee No. 3
Legislative Committee—Reference Committee No. 4
Medical Education Committee—Reference Committee No. 3
AMA-ERF Committee—Reference Committee No. 3
Rural Health Committee—Reference Committee No. 2
Public Service Committee—Reference Committee No. 4
Medicine and Religion Committee—Reference Committee No. 5
Medical Ethics Committee—Reference Committee No. 4
Voluntary Health Agencies Committee—Reference Committee No. 5
Mental Health Committee—Reference Committee No. 5
Talmadge Hospital Liaison Committee—Reference Committee No. 4
Paramedical Study Committee—Reference Committee No. 2
Separate Billing Committee—Reference Committee No. 4
House of Delegates Election Study Committee—Reference Committee No. 4

OTHER REPORTS

Report of the *Journal*—Reference Committee No. 5
Report of the Woman's Auxiliary to MAG—Reference Committee No. 3

General Practitioner of the Year Award

Speaker Walker presented the three nominations for the 1967 Georgia "General Practitioner of the Year" Award as received from the Association's First General Business Session. The three nominees presented were: C. H. Bryant, Comer; Robert V. Brandon, Griffin; and George F. Hagood, Marietta. Dr. Walker then asked the Delegates to mark their "GP of the Year" ballot with the name of the candidate of their choice for this high honor. Tellers Committee Chairman Cecil White then reported that Dr. George F. Hagood, of Marietta, Georgia, had been elected the 1967 "General Practitioner of the Year," and Speaker Walker announced that this award would be presented at the final MAG General Business Session, May 2.

Unfinished Business

Speaker Walker announced that as the first order of unfinished business, he wished to present certain items of business relative to the reports received by the Delegates. Dr. Walker presented the "Incoming President's Address" rendered earlier in the morning by President-Elect John T. Mauldin.

Incoming President's Address—Reference Committee No. 1

Speaker Walker then announced that he wished to present and refer Late Reports received after the deadline for printing the Delegates' Handbook. These Late Reports as received and referred to Reference Committees are as follows:

Late Report No. 1: AMA Alternate Delegate Report—Reference Committee No. 5

Late Report No. 2: Insurance and Economics Committee—Reference Committee No. 2

Late Report No. 3: Medical Review and Negotiating Committee—Reference Committee No. 1

Supplemental Reports

Speaker Walker proceeded with unfinished business, presenting Supplemental Reports for referral to House of Delegates Reference Committees. Dr. Walker stated that a Supplemental Report adds something new to an existing report previously submitted, and that he would, therefore, refer these Supplemental Reports to the same Reference Committee that received the original report, if possible. The following Supplemental Reports were then referred as follows:

Supplemental Report A: MAG Council—Open Drug Formulary in Drug Program—Reference Committee No. 4

Supplemental Report B: Legislative Committee—1967 Session of the Georgia General Assembly—Reference Committee No. 4

Supplemental Report C: MAG Secretary—MAG Education and Research Foundation—Reference Committee No. 1

Supplemental Report D: Medical Education Committee—1967 Conference on Medical Education—Reference Committee No. 3

Supplemental Report E: Nursing Liaison Committee—Diploma Schools of Nursing—Reference Committee No. 3

Supplemental Report F: House of Delegates Election Study Committee—MAG Elections—Reference Committee No. 4

Supplemental Report G: MAG Council—Title XIX—Usual and Customary Fees—Reference Committee No. 1

Supplemental Report H: MAG Council—Title XIX—Reciprocal and Cooperative Agreements—Reference Committee No. 4

New Business—Resolutions

Speaker Walker stated that at this time, the House would consider new business which concerns the introduction of Resolutions. The following Resolutions were then presented:

Resolution No. 1: Highway Safety—Reference Committee No. 2

Resolution No. 2: Administration of Title XIX—Reference Committee No. 4

Resolution No. 3: Honorary MAG Membership for Raymond Ahlquist, Ph.D.—Reference Committee No. 2

Resolution No. 4: Title XIX—Reference Committee No. 1

Resolution No. 5: Hospital-Physician Relations—Reference Committee No. 4

Resolution No. 6: Central Billing System—Reference Committee No. 5

Resolution No. 7: Payment of Fees for Surgical Assistants and Hospital Based Physicians by Insurance Carriers operating in the State of Georgia—Reference Committee No. 2

Resolution No. 8: Hospital Clinical Charts—Reference Committee No. 2

Resolution No. 9: GaMPAC Commendation—Reference Committee No. 4

Resolution No. 10: Office of Economic Opportunity Program—Reference Committee No. 2

Resolution No. 11: Eye Examinations by Licensed Physicians—Reference Committee No. 4

Resolution No. 12: Practice of Anesthesiology by Unlicensed Physicians—Reference Committee No. 4

Speaker Walker recognized Dr. R. C. McGahee, of Augusta, who stated that with all of the Late Reports, Supplemental Reports and Resolutions received by the House, it would be difficult to fully consider this data in the short period of time allowed for House deliberations. He moved that in the future, as much of this material be forwarded to the Delegates with the printed Delegates' Handbook as possible, and this motion was duly seconded and approved.

Speaker Walker called for additional Resolutions, and there being none, the First Session of the MAG House of Delegates was recessed, on motion duly made and seconded at 10:05 a.m.

SECOND SESSION, HOUSE OF DELEGATES

(RECESSED)

TUESDAY, MAY 2, 1967

The Second Session (Recessed) of the House of Delegates of the Medical Association of Georgia held in conjunction with the 113th Annual Session of the Association was called to order by Speaker J. Frank Walker at 9:50 a.m., in the North Ballroom, Marriott Motor Hotel, Atlanta, Georgia, on May 2, 1967.

Speaker Walker announced that the Credentials Committee Chairman reported an attendance in excess of 40 members registered and accounted for, therefore, Dr. Walker declared a quorum present and the House of Delegates in session. The Credentials Committee made the following complete report on attendance at the close of the meeting.

Attendance

In a compilation of attendance taken from the official roll, 45 county medical societies were represented by their duly elected delegates or alternates. Twenty-nine county medical societies were not represented at this Second Session. Of a total of 161

authorized delegates from their respective medical societies, the official roll showed 113 delegates present at this Second Session.

BALDWIN: A. C. Martinez; BIBB: F. V. Kay, Milton I. Johnson, Charles R. White, J. G. Etheridge, Gordon W. Jackson, Clyatt W. James; BLUE RIDGE: Charles B. Watkins; BURKE: E. R. Hensley; CARROLL-DOUGLAS-HARALSON: J. Harvey Beall, Phil C. Astin, Martin L. Johnson; GEORGIA MEDICAL SOCIETY: Jules Victor, William H. Fulmer, Lee Howard, Jr., Irving Victor, John L. Elliott; CHATTAHOOCHEE: Rupert H. Bramblett; CHEROKEE-PICKENS: C. J. Roper; CRAWFORD W. LONG: M. A. Hubert; CLAYTON-FAYETTE: Wells Riley; COBB: Remer Y. Clark, T. J. VanSant, James H. Manning, Donald R. Rooney, Frederick K. Schmidt; DECATUR-SEMINOLE: Henry A. Bridges; DEKALB: Luther Vinton, Z. V. Morgan, Albert H. Fregosi, Glenn McCormick; DOUGHERTY: D. Allen Turner, Laurence T. Crimmins; EMANUEL: R. J. Moye; FLOYD: James H. Smith, Richard W. Leigh, A. Richard Gray; FULTON: William D. Logan, A. A. Rayle, Jr., Tully T. Blalock, Harrison L. Rodgers, W. L. Curtis, J. Harold Harrison, Charles E. Todd, A. J. Crumbley, James A. Kaufmann, James P. Isaacs, Spencer S. Brewer, William W. Moore, Jr., J. Watts Lipscomb, J. D. Martin, F. William Dowda, Frank L. Wilson, J. G. McDaniel, Don Cathcart, Joseph L. Girardeau, J. Rhodes Haverty, W. Perrin Nicolson, III, John T. Godwin, J. Frank Walker, Linton H. Bishop, Jr., Robert E. Wells, Lamar B. Peacock, Fleming L. Jolley, Joseph S. Wilson, Neil Perkinson, John S. Atwater, Edwin C. Evans, L. Newton Turk, III, G. Lester Forbes, L. Harvey Hamff, Asa G. Yancey; GLYNN: C. A. Wilson, Jr., C. S. Britt, Bert H. Malone; HABERSHAM: Thomas N. Lumsden; HALL: Robert Anderson, B. S. Hardman, C. W. Whitworth; PEACH BELT: H. E. Weems, Jr.; JACKSON-BANKS: Emory W. Holloway; JEFFERSON: C. Roy Williams; MERIWETHER-HARRIS: J. W. Smith, Jr.; MITCHELL: J. C. Brim; MUSCOGEE: G. Bertling Smith, Jack McGee, Jack A. Raines; NEWTON-ROCKDALE: J. R. Sams; OCONEE VALLEY: George F. Green; POLK: Don Schmidt; RICHMOND: Cecil A. White, Jr., Robert C. McGahee, Preston D. Ellington, R. F. Galloway, John R. Fair, William A. Fuller, Daniel B. Sullivan, Henry D. Scoggins, Walter L. Shepeard; SOUTH GEORGIA: Fred C. Smith; SOUTHEAST GEORGIA: M. H. Whittle; SPALDING: Alex Jones; SUMTER: John H. Robinson, III; TAYLOR: E. C. Whatley; THOMAS-BROOKS: Robert T. Cain; TIFT: Carl S. Pittman, Jr.; TROUP: H. H. Hammett, Jr.; UPSON: T. A. Sappington; WALKER-CATOOSA-DADE: M. K. Cureton, Fred H. Simonton; WALTON: Alexander Ashford; WARE: F. E. Davis, L. C. Durrence; WASHINGTON: William Rawlings; WAYNE: J. W. Yeomans; WHITFIELD: R. T. Farrow; WILKES: M. C. Adair.

Reference Committee Reports

Speaker Walker stated that the next order of business would be the Reference Committee Reports as follows:

Report of Reference Committee No. 1

M. K. Cureton, M.D., LaFayette, Chairman

(The following reports as presented to this Reference Committee are printed in full with the Reference Committee's recommendation and the action pursuant to it taken by the House of Delegates.)

Reference Committee No. 1 met at 2:35 p.m., Whitehall Suite, Marriott Motor Hotel, Atlanta, on May 1, 1967. Members of the Committee present included: M. K. Cureton, Chairman, LaFayette; John Deal, Vice Chairman, Statesboro; Charles Todd, Secretary, Atlanta; D. Allen Turner, Albany; F. E. Davis, Waycross; and Spencer Brewer, Atlanta.

President

WALTER E. BROWN, M.D., *Savannah*

This past year has seen many new and untried developments in the practice of our profession as we have previously known and been accustomed to consider as ethical and customary. These changes will continue to develop and expand rapidly. These have been repeatedly discussed and reported in committee meetings, articles, forums, conferences and etc. and need not be detailed again in this report.

The advent of Medicare and its impact on our established previous concepts of practice has by far been the most radical change. The provisions, rules and regulations have caused many changes, creating problems in our offices, hospitals, clinics—even now efforts are being made by AMA to have the Congress delete or change many vexing and objectionable features of this legislation and to add provisions which will make it more acceptable and workable.

During the year I have attended: (1) All meetings of Council; (2) All meetings of MAG Executive Committee except one when I was unable to reach Atlanta because of being fogged out and flying cancelled; (3) Meeting of the Finance Committee; (4) Meeting of State Medical Education Board; (5) Meeting of Advisory Committee, State Department Vocational Rehabilitation; (6) May 1966 Annual Session MAG; (7) AMA Annual Session in Chicago June 1966 and AMA Clinical Session in Las Vegas November 1966; (8) Two meetings of organization of State Presidents in Chicago; (9) Meeting with Georgia Congressional Delegation, Washington, July 1966; (10) Conference on Medical Ethics; (11) County Society Officers Annual Conference; (12) Medical Education Conference at Callaway Gardens, March 3, 4, 5, 1967, jointly sponsored by MAG, Medical College of Georgia, and Emory University School of Medicine; (13) All meetings of Heart, Cancer and Stroke Committee (Georgia Regional Medical Program). This program now in active planning stage with grant approved of $240,000.00. This probably is one of most important and far reaching developments during entire year; (14) A member of Executive Committee, Council or myself has attended all meetings of Board of Health. It is gratifying to be able to report much closer contacts between Board of Health and MAG. During this year many improvements have been made at Gracewood, Milledgeville and other increased activities have been reported in our *Journal* and news media and need not be listed here; (15) Routine business trips to Headquarters Office monthly and as needed. On the Administrative and Headquarters level our most active and timely improvement was employment of a full-time Field Director and Office Assistant, Mr. William V. (Dub) Wallace, has already proven his worth in visiting and advising with county officers and societies, and programming special conferences, in addition to other duties at the Headquarters Office.

I wish now to highly commend and compliment our entire Headquarters Office force, it is certain that no state association in America has an efficient and capable personnel. Needless to say their cooperation, help and guidance are invaluable to your President, without which his tasks would at times be most difficult. My

sincere appreciation for a most pleasant and gratifying Association. All Officers, members of Executive Committee, and Council have given freely of their time and effort in serious and thoughtful study and solution of many problems which have presented themselves from time to time. My special thanks to the members of Executive Committee, for timely and valuable advice and cooperation at all times on many occasions.

All activities of Council, Executive Committee, and all special and regular committees have been duly recorded and published in the *JMAG* listing of these would be superfluous and unnecessary in this report. A few minor controversial problems and areas of disagreement have been adjusted amicably and without rancor. Freedom of expression and opinions have been encouraged in Executive Committee and Council. All members of MAG are invited and encouraged to appear before Council or Executive Committee for discussion of any pertinent problems which present themselves.

RECOMMENDATION

1. Increase President's honorarium to $3,600.00 yearly.

REFERENCE COMMITTEE RECOMMENDATION—Your Committee recommends disapproval of Item 1 at this time, but recommends to this House that it direct the MAG Council to establish a *Special Finance Committee* to study the finances of MAG and make recommendations back to the House of Delegates at their 1968 meeting regarding any suggestions for dues increase, altered spending policies, and any other matters concerning themselves with MAG income and disbursements.

HOUSE OF DELEGATES ACTION—Adopted the recommendation of the Reference Committee in disapproving Item 1, and approved the additional recommendation of the Reference Committee.

2. Consider payment of travel expense for Councilors and Delegates and Alternates in the future.

REFERENCE COMMITTEE RECOMMENDATION—Your Committee recommends disapproval of this recommendation at this time, and referral of this matter to the *Special Finance Committee of Council* as recommended by your Reference Committee in Item I.

HOUSE OF DELEGATES ACTION—Adopted the recommendation of the Reference Committee in disapproving Item 2, and approved the additional recommendation of the Reference Committee on Item 2.

3. Consider new Headquarters Office building or expansion of present one.

REFERENCE COMMITTEE RECOMMENDATION—Your Committee approves Item 3 and recommends that the existing MAG Committee on this matter proceed with its study without undue delay.

HOUSE OF DELEGATES ACTION—Adopted the recommendation of the President in Item 3 with the additional recommendation made by the Reference Committee.

4. Outgoing First Vice President to Executive Committee (voting) for one year.

REFERENCE COMMITTEE RECOMMENDATION—Your Committee recommends disapproval of this recommendation in the interest of maintaining the size of Executive Committee of Council at an effective level.

HOUSE OF DELEGATES ACTION—Adopted the recommendation of the Reference Committee in disapproving Item 4.

5. Continue and expand paramedical recruitment and education program.

6. Continue activity in motor vehicle safety program and support favorable legislation for its improvement.

7. Continue to support on state and national level legislation favorable to our profession. Continue to oppose on state and national level passage of legislation not in best interest of our people and our profession.

8. Cooperate with Board of Health in improved and expanded health programs.

9. Accept changes in practice which have been taken place by legislation, but work for modification of unadvisable and unacceptable provisions of present laws.

10. Closer liaison and cooperation with State Board of Medical Examiners.

11. I also wish to call to the attention of the MAG membership that the Association will operate under a deficit budget for the year 1967 of approximately $13,000.00. This deficit was mainly due to the directive of the House to employ a Field Service Representative for closer liaison between MAG and its component county medical societies. The excess of income over expenditures during 1966 will offset this 1967 budget deficit, however we cannot anticipate such an excess in 1967 to cover activities in 1968. This matter should be recognized and studied by Council and the House of Delegates. I wish to express my personal opinion that the establishment of a Field Service activity has already and in the future will continue to pay tremendous dividends and add to the effectiveness of MAG.

REFERENCE COMMITTEE RECOMMENDATION—Your Reference Committee recommends approval of Items 5, 6, 7, 8, 9, 10, and 11.

HOUSE OF DELEGATES ACTION—Adopted Items 5, 6, 7, 8, 9, 10, and II in the President's Report as recommended by the Reference Committee.

Incoming President's Address

John T. Mauldin, M.D., *Atlanta*

The people of the United States do not want socialized medicine. As anxious as they may be for aid in the payment of medical bills, they would be dissatified with government medicine. Political leaders will continue to appropriate funds for studies and trial projects in medical care. It is possible for something of real value to result, but by far most of the projects will only prove that with enough money an unnecessary job may be accomplished under impossible circumstances. We may assume that political leaders will continue to point out the need for further expanded medical programs, and that the public will accept the government and political analysis.

Another factor that must be faced is that the public is being taxed to pay for the medical care of a large segment of our population. This is a fact; no matter whether it is considered good or bad; right or wrong. The only way to prevent further expansion is by making it obvious that there is no real need for additional government programs or increasing our present programs. In order to accomplish this goal, every physician must do more than take excellent care of his patients. He should see that every individual has adequate medical care available at all times, and make sure that the public knows this is true.

He should make every effort to see that the present programs are implemented in a manner that will make the private practice of medicine available to all individuals.

He should be an active participant in the planning of any community or state projects that may involve medical facilities.

He should take an active part in the planning and the control of present programs.

He should accept and improve necessary administrative and coordinating responsibility at all levels; hospitals, nursing homes, home health care programs, and community immunizations for example.

These things can only be accomplished by properly relating to the socio-economic environment as it exists today.

You may recall that the Industrial Revolution took over 100 years, and was accompanied by riots and much upheaval. Today the old problem of producing a product of service, distributing it to the areas where it is needed, and then obtaining public acceptance has been replaced by a new set of problems. The most amazing change has been in the public acceptance yea demand of these new services and products. In fact new techniques are developing so rapidly, that it has become a major problem to decide which is to be utilized first, and which is most effective. Today a new product placed on the market with only moderate claims to efficacy, may be gobbled up by the public.

The physician is the most knowledgeable person in the health care field, and it is his responsbility to be active in the decisions involved in the production and distribution of medical care.

Two other factors which must be recognized are the population explosion and the rapid advance in technology. The contributing factors of increased birth rate, increased life span, control of communicable disease, and so forth, all have played a part. The resulting problems in all phases of society have been enormous. For example, the teacher and classrooms shortage—or perhaps an example that is closer to home, would be the shortage of hospital and nursing home beds. These problems have led to a new breed of sociologists that we may loosely call "social planners." These individuals tend to congregate in the sheltered protection of government offices, but occasionally one may be heard from an ivory tower. Their solution is inevitably a bigger and more complex program. The result being more problems.

The second basic factor is the rapid advance in technology. It has been estimated that the scientific knowledge is doubling about every ten years. A student graduating from engineering school this June, with all the new techniques at his fingertips, will be obsolete in five years without continued study. These technological advances today, as in the past, inevitably result in an acceleration of social change. Never in the history of civilization have so many advances incurred in such a short period of time.

In order to be the leader of the health care field, the physician must be aware of and utilize the decision-making machinery of our democracy. Every decision in a democracy is always a compromise. No one power group is strong enough to rule alone. Therefore, each decision must result from a collision of power groups, and in almost every instance the result is a compromise.

Let us spend a few minutes enumerating these groups for a better understanding. The Legislative Branch of our government has the power to originate and pass laws. The Administration may veto or recommend legislation. Both branches are under pressure from many forces. The President and Governors of the various states, and members of the legislature are elected by popular vote. Therefore, public opinion is a factor. The press is also a factor. Although no one would always claim an unbiased factor. Then lastly, we should consider the group of citizens, who with a common interest, band together to accomplish a purpose; such as labor, the farmers, manufacturers, etc. These groups go by various names: lobbyists, special interest groups, pressure groups. In fact the term applied to a particular group may vary depending on which side you may be.

If physicians are to accept the responsibility for the provision for and allocation of medical care, they must aggressively assume more of this responsibility in today's environment.

Would we be remiss to say, gentlemen, the medical profession has the answer to this problem? Let us sit down together, and discuss how to use this knowledge.

REFERENCE COMMITTEE RECOMMENDATION—Your Committee recommends approval and commends the attitude that all physicians accept the responsibility for leadership in all medical activities in their communities.

HOUSE OF DELEGATES ACTION—Adopted the Incoming President's Report as recommended by the Reference Committee.

Immediate Past President

GEORGE H. ALEXANDER, M.D., *Forsyth*

During my year as Immediate Past President, I have attended all of the meetings of the Executive Committee and Council.

In July, I attended the meeting of the State Medical Education Board. As before, I have been tremendously impressed with the benefits to the State as well as the scholarship recipients under this program. I recommend that the Medical Association of Georgia endorse and continue its support of the Scholarship Program of the State Medical Education Board. I further recommend that where indicated and approved by the Legislation Committee that legislative support be given to the program.

In October, I attended the Governor's Conference on Education, at which time I "put in a plug" for the two-year associate degree in nursing program, as well as for para-medical education.

During the year, I have become convinced that Executive Committee needs to have the Finance Committee to budget for an Executive Committee Emergency Fund. The Finance Committee and Council have the power to do this, but might be reluctant to do so without a directive from the House of Delegates. There have been occasions between Council meetings when it has been necessary for Executive Committee to authorize expenditures and gamble on retroactive approval by Council.

I recommend that the House of Delegates recommend (or direct) that the Finance Committee provide for the budgeting of such a fund.

The past three years have been memorable years for me. The experiences have been most rewarding and will be pleasantly remembered as time goes on. My interest in organized medicine and in the Medical Association of Georgia—in particular—will continue.

REFERENCE COMMITTEE RECOMMENDATION—Your Committee approves the report and recommends that the House of Delegates instruct the MAG Finance Committee to provide for an Executive Committee of Council Emergency Fund not to exceed $500.00.

HOUSE OF DELEGATES ACTION—Speaker Walker recognized J. G. McDaniel, Atlanta, who spoke in opposition to the Reference Committee recommendation. Dr. Walker also recognized George Alexander, Forsyth, who spoke in favor of the Reference Committee recommendation.

On motion duly made and seconded, the House voted to disapprove the Reference Committee recommendation, and the recommendation of the Immediate Past President which would have provided for an Executive Committee of Council Emergency Fund.

Secretary

J. Rhodes Haverty, M.D., *Atlanta*

The first year in any new position is bound to be a year of transition for all parties concerned. The shoes of John Mauldin, M.D., previous Secretary of the Medical Association of Georgia for six years, are difficult to fill. However, I have had the cooperation of all persons in helping me work out the many problems that the Secretary must face as time passes.

First, I would like to note that there are several constitutional duties of the Secretary that I have attended to. Attendance at the House of Delegates and at Council and Executive Committee meetings, and follow-up on action taken from these bodies is one of the responsibilities of the Secretary of the MAG. These have all been attended to faithfully up to the present.

OFFICIAL CORRESPONDENCE

A great deal of official correspondence to and from the Medical Association of Georgia comes over the Secretary's desk. This is attended to with referral of appropriate matters to the Executive Committee of Council, or to the full Council meetings, when indicated. Among some of the more important official correspondence sent out from the Secretary's office were letters to various agencies, including the Department of Family and Children's Services, the Vocational Rehabilitation Department, Workmen's Compensation Board, the State Department of Health and the Crippled Children's Department. In these letters MAG reiterated the position taken by this House, in urging all third parties to work toward a financial arrangement of "usual and customary fees" payable to physicians when the indigency of a patient is assumed by these third party agencies. Varying degrees of success has been obtained, but at least these agencies are now notified that this is our aim.

Also under official correspondence, membership records of the MAG are kept up to date, and annual membership cards are mailed out. The following is a breakdown of the 1966 membership statistics, a continuing increase from previous years.

Active	2961
Affiliate	1
Associate	51
Dues-exempt members	302
Honorary	1
Service	60
	3376

MAG HEADQUARTERS OFFICE

In my capacity as Secretary, I schedule a weekly meeting at the Medical Association of Georgia with the staff to help advise and handle problems beyond their jurisdiction. I am also available and frequently contacted by telephone for any matters that come up of an acute nature. Mr. Krueger, Mrs. Wooten, Miss Franklin, Mr. Moffett, and Mr. Wallace have all been most helpful in making my job easier and in allowing me to conduct the business of the Society in a more expeditious manner. The entire staff of the MAG deserves great commendation for their dedicated service to us, the physicians of Georgia. As Secretary to the Association also I am available to the various committees of the Association to use when desired.

MILITARY MEDICARE (ODMC)

The Medical Association of Georgia is the fiscal agent in the State of Georgia for Military Medicare. As such your Secretary is responsible for seeing that this program is carried out effectively and well, under the very capable handling of Mrs. Joyce Butler, MAG Staff Administrator. As is the situation with many other present and future governmental programs, it is the opinion of your Secretary that we as physicians can best handle those programs which are thrust upon us. Consequently I will continue to attempt to involve MAG in the administration of these programs and I will continue to officiate in your best interests.

The following is a statistical report for the Office for Dependents' Medical Care (Military Medicare—1966):

Number of claims received	17,001
Average per month	1,416
Returned for additional information	3,011
Rejected	320
Adjudicated by review boards	138
Adjusted (above maximum allowance with no apparent extra care involved)	2,103
Paid	13,419
Total dollar amount paid	$1,080,377.91
Average per claim	$80.50

HEART DISEASE, CANCER AND STROKE

As everyone is aware, the MAG has been appointed applicant, under Public Law 89-239 for the Heart Disease, Cancer and Stroke and Related Diseases Program in Georgia which is entitled the "Georgia Regional Medical Program." Dr. J. W. Chambers, of LaGrange, has been named Program Coordinator. The Secretary has been appointed a fiscal agent for this Program. This Program has increased the staff of MAG by several persons, some of whom are yet to be named. Again, we will try to administer this far reaching Program to the best interests of the physicians and their patients in the State of Georgia.

ASSOCIATION INCOME AND EXPENDITURES

Your Secretary is a co-signer of all checks delivered by the Association. This responsibility is not taken lightly and expenditures are double checked both by the office staff as well as by me prior to co-signing the checks with your Treasurer.

It is worthy to note that your Association, this year, is operating on a budget deficit of approximately $13,000.00. This was planned for before hand at the direction of this body by recommending the hiring of a MAG Staff Field Service Representative. With our present knowledge, however, the excess of funds, primarily derived from the *Journal of the Medical Association of Georgia* during 1966, will cover this deficit for this year. However, again, it should be recognized that this deficit is a recurring one and that again this com-

ing year (1968) we must anticipate a deficit of approximately $13,000.00. I would, therefore, like to recommend to this House that it direct Council to establish a special Council Committee to study the finances of the Medical Association of Georgia and make recommendations back to the House of Delegates at their 1968 meeting regarding any suggestions for dues increases, altered spending policies, and any other matters concerning themselves with MAG income and disbursements.

MISCELLANEOUS

The Executive Committee directed your Secretary to work-up a brochure of the Medical Association of Georgia Committees for use by these Committees and other interested parties. This is presently being done. This brochure will include comments concerning the function of the Committee, the duties of the Committee, the Chairman, and its members, and the scope of the Committee activities, and should prove to be a very worthwhile document.

I would like to thank heartily all the Officers and Committee Chairmen of this House, of the Council, of the Executive Committee of Council, and of the other components of the MAG for their help to me in making this, my first year, a most pleasant and worthwhile one. I would hope to continue in this vein over the ensuing years.

Supplemental Report of the Secretary No. C

MEDICAL ASSOCIATION OF GEORGIA EDUCATION AND RESEARCH FOUNDATION

JOHN RHODES HAVERTY, M.D., *Secretary*

As Secretary, I would like to add this to my annual report. This form of Supplemental Report is being used because the deadline for incorporation in the annual report passed prior to final action on this matter.

I am pleased to report that the Medical Association of Georgia Foundation, Incorporated has been established for the following purposes: To engage in and carry on scientific research projects; to promote charitable, educational and scientific activities of all types; to lend financial assistance to such members or students as may need it; and to apply for grants from government agencies and other organizations for programs consistent with Medical Association of Georgia goals.

We hope to acquire funds from all sources including bequests, gifts and monies put into the fund for specific purposes from corporations or other organizations. This Foundation will be run by members of the Medical Association of Georgia only. We would hope that it would prove beneficial to the Medical Association of Georgia and through it for the peoples of our state.

The Executive Committee of Council shall appoint a Board of six Trustees to govern the activities of this Foundation.

Copies of the Bylaws and the Charter are available to any interested physician from the Headquarters Office.

REFERENCE COMMITTEE RECOMMENDATION—Your Committee approves these two reports with commendation. We particularly approve the proposal to establish a *Special Finance Committee of Council* as presented by your Reference Committee recommendation concerning Item 1 of the President's Report.

HOUSE OF DELEGATES ACTION—Adopted the report of the Secretary and the Supplemental Report of the Secretary No. C titled: "Medical Association of Georgia Education and Research Foundation" as recommended by the Reference Committee.

Council of MAG

CHARLES R. ANDREWS, M.D., *Chairman*

At the time of this early (February) reporting, Council has met at its regular and usual scheduled intervals—June, September, and December, and Chairman of Council has been in attendance at all meetings. Actions to be carried out as designated by the House of Delegates totaled twelve in number. These actions have been taken by Council:

(1) Voted to contact county medical society officers to urge increased membership in GaMPAC and AMPAC;

(2) Appointed a Committee to enhance liaison between MAG, Georgia State Board of Health, and State Department of Public Safety;

(3) Referred to Special Activities Committee the task of creating better liaison between State Vocational Rehabilitation, Vocational Training Schools, and the Medical Profession;

(4) Employed a Field Service Representative for MAG;

(5) Published in *JMAG* and in an *Officers Newsletter*, policy statement that attempts by Federal Agencies to impose conditions on medical profession should be opposed;

(6) Notified all MAG committees of policy statement relative to plan whereby physicians may elect to receive reimbursement from patient of carrier without jeopardizing patient's benefits;

(7) Voted to instruct AMA Delegates relative to direct billing;

(8) Voted to hold State Medical Ethics Conference and allotted funds for same;

(9) Referred to Medical Review and Negotiating Committee the report of the Chairman of the Governmental Medical Services Board, with Reference Committee amendments, and approval of the House of Delegates, relative to Reasonable and Customary Fee Schedule;

(10) Voted to publish in *JMAG* and in an *Officers Newsletter* and to send to Separate Billing Committee Resolution 6 relative to Separate Anesthesiology, Pathology and Radiology Fees from Hospital Services;

(11) Voted to publish in *JMAG* and in an *Officers Newsletter* and to send to Hospital Governing Boards in Georgia Resolution 8 relative to increased Nurses salaries; and

(12) Referred to Board of Regents Report G relative to Burn Center.

In addition, Executive Committee of Council acted on the following items:

(1) Appointed standing Committee on Traffic Safety;

(2) Approved working with AMA and other State Associations to preserve Physician-Patient relationship, Voluntary Services to Humanity, and independence relative to practice of medicine.

(3) Recommended that Special Activities Committee be retained;

(4) Recommended that Voluntary Health Agency be retained;

(5) Approved MAG in support of Division of Mental Health being retained as a Division of State Department of Health;

(6) Approved setting up Separate Billing Committee; and

(7) Followed new Constitution and Bylaws in appointing Standing Committees.

It is felt that the appointment of Deputy Councilors in each district is a wise and important step toward strengthening our organization and improving better liaison between doctors on the local society level and the Headquarters of MAG.

It is felt at this time that the House of Delegates should take a firm look toward the necessity in the near future for (1) expanding the Headquarters building facilities, and (2) raising annual dues.

I wish to commend the Councilors and many of the Vice-Councilors for their earnest efforts, the long hours spent, and their sincere and diligent interest in the administration of the affairs of the Medical Association of Georgia.

REFERENCE COMMITTEE RECOMMENDATION—Your Committee approves this report with commendation. Your Committee recommends that the problems of the MAG Headquarters Building expansion be referred to the existing committee studying this problem. The problem of the raising of MAG annual dues should be referred to the *Special Finance Committee of Council* as noted in Item 1 of the President's Report.

HOUSE OF DELEGATES ACTION—Adopted the report of the Council with the additional recommendations made by the Reference Committee.

Finance

F. G. Eldridge, M.D., *Chairman*

The finances of the Medical Association of Georgia are in excellent condition.

The Budget for 1967-68 has been formulated, approved by Council, and will be published under the appropriate heading.

Our MAG Headquarters Building will be free and clear of indebtedness with the next two years; plans are being formulated to make improvements and additions as required for continued housing and maintenance of our facilities—adequate funds are either set aside or in the process to maintain our building properly.

A supplemental report will be forthcoming, if necessary, to up-date plans and continuance of our financial needs.

SUMMARY-COMPARISON OF BUDGETED AND ACTUAL OPERATIONS

THE MEDICAL ASSOCIATION OF GEORGIA
Period January 1, 1966 to November 30, 1966

	1966 Budget	*Actual Jan. 1-Nov. 30, '66*	*1967 Proposed Budget*
INCOME			
I. (a) MAG Dues	$119,000.00	$119,460.00	$120,000.00
(b) Int. & AMA	5,500.00	6,514.86	5,500.00
(c) GP Service	3,250.00	2,978.30	3,250.00
II. ANNUAL SESSION	7,875.00	7,525.00	7,875.00
III. JOURNAL	37,550.00	44,230.25	57,000.00
IV. CONTINGENT			
1965 Excess	10,033.61	10.033.61	
V. DEFICIT			12,758.75
	$183,208.61	$190,742.02	$206,383.75
EXPENSES			
I. (a) Fixed Allot.	$ 17,400.00	$ 9,851.27	$ 23,441.20
(b) Assoc. Office	95,753.14	85,719.64	115,125.50
(c) Assoc. Boards	17,556.00	12,567.23	18,315.00
(d) Rel. MAG Act.	1,600.00	637.19	1,600.00
(e) Cont. Fd. 1966	3,324.38		
Cont. Fd. 1965	10,033.61	9,235.15	
II. JOURNAL	37,541.48	42,601.61	47.902.05
	$183,208.61	$160,612.09	$206,383.75
LIQUID FUNDS AVAILABLE			
I. Cash in Bank		$ 21,151.92	
C & S Bank		20,000.00	
II. Fulton Fed. Savings & Loan		$ 1,600.00 Equipment	
Peachtree Federal		8,400.00 Building	
(Depreciation Savings Acct.)		2,000.00 Building	

	1966 Budget	Actual Jan. 1-Nov. 30, '66	1967 Proposed Budget
III. Savings Accts.			
American Bank of Atlanta		$ 10,000.00	
Atlanta Federal Savings		10,000.00	
C & S National Bank		30,000.00	
DeKalb County Fed. & Savings		10,000.00	
Standard Federal		10,000.00	
I. (a) FIXED ALLOTMENTS			
Payment on Mortgage	$ 4,000.00		$ 4,000.00
Interest on Mortgage	550.00		350.00
MAG Atty. Ret.	3,600.00	$ 3,000.00	4,800.00
MAG Atty. Exp.	300.00	164.00	150.00
Pension Payments	2,400.00	1,450.00	2,400.00
Pres. Honorarium	2,400.00	1,200.00	2,400.00
Annual Audit	500.00	500.00	700.00
Taxes	3,500.00	3,517.58	3,500.00
Retirement Trustee	150.00	19.69	150.00
Retirement Cont.			4,691.20
Woman's Auxiliary			300.00
	$ 17,400.00	$ 9,851.27	$ 23,441.20
(b) ASSOCIATION OFFICE			
Salaries	$ 60,020.00	$ 57.679.99	$ 77,750.00
Ins. & Bonds	2,850.00	2,065.31	2,850.00
Payroll Tax	2,418.14	2,218.81	3,325.50
Travel-Pres.	1,500.00	1,016.66	1,500.00
Travel-Office	2,500.00	3,089.71	4,000.00
Travel-Del., Sec., AMA Ann. & Clin. Sess.	3,800.00	2,389.18	3,100.00
Alt. Del. Transp.	3,040.00	1,538.46	2,650.00
Maint. & Rep.			
Building	750.00	626.28	750.00
Equipment	500.00	565.70	600.00
Tel. & Tel.	4,000.00	3,898.88	4,000.00
Depreciation			
Building	2,000.00	400.00	2,000.00
Equipment	650.00	251.15	650.00
Postage	3,000.00	2,202.26	2,750.00
Office Supplies	2,750.00	3,138.86	3,000.00
Jan. Serv. & Supp.	2,000.00	1,562.72	2.200.00
Meetings	800.00	609.22	800.00
Dues & Subscriptions	375.00	345.00	400.00
Heat, Light & Water	2,500.00	2,020.01	2,500.00
Sundry	300.00	101.44	300.00
	$ 95,753.14	$ 85,719.64	$115,125.50
(c) ASSOCIATION BOARDS			
1. Annual Session	$ 8,611.00	$ 6,631.36	$ 7,850.00
3. Hospital Activities	50.00	47.49	200.00
a. Blood Banks			50.00
4. Govern. Med. Serv.	50.00		
b. Dist. Med. Care	200.00		200.00
c. Mat. & Inf. Wel.	350.00	284.65	450.00
f. Sch.-Child Health	1,000.00	393.17	1,500.00
5. Ins. & Econ.	700.00	44.82	50.00
6. Interprof. Rel.	125.00	125.00	125.00
a. Nurs. Liaison	50.00		50.00
7. Legislation	2,500.00	2,253.41	2,250.00
8. Medical Education			1,200.00
a. AMA-ERF	45.00		35.00
9. Occup. Health	300.00		300.00
b. Rural Health	900.00	820.28	800.00
10. Public Serv.	1,925.00	1,681.94	1,925.00
11. Special Activities	50.00		

	1966 Budget	Actual Jan. 1-Nov. 30, '66	1967 Proposed Budget
12. Vol. Health Agencies	350.00	105.79	300.00
a. Cancer	100.00		100.00
b. Mental Health	250.00	179.32	230.00
Medical Ethics			50.00
Medicine and Religion			250.00
Med. Review & Nego.			50.00
Phy.-Lawyer Liaison			50.00
Prof. Conduct			50.00
Sep. Billing			100.00
Tel. Hospital Liaison			100.00
Traffic Safety			50.00
	$ 17,556.00	$ 12,567.23	$ 18,315.00
(d) RELATED MAG ACTIVITIES			
AMA Del. Meeting	$ 800.00	$ 316.12	$ 800.00
Medical Defense	200.00		200.00
SAMA	500.00	250.00	500.00
SMEB	100.00	71.07	100.00
	$ 1,600.00	$ 637.19	$ 1,600.00
(e) CONTINGENT 1965	$10,033.61		
Contingent 1966	3,324.38		
Blood Banks		$ 25.00	
Ret. Cont. 1965		3,952.40	
1 qt. cont. 1966		1,055.35	
2 qt. cont. 1966		1,055.35	
3 qt. cont. 1966		1,055.35	
Nego. Fee Comm.		66.70	
Allied Med. Car.		25.00	
GaMPAC		1,500.00	
Mat. & Inf. Welfare		200.00	
Office Travel		300.00	
	$ 13,357.99	$ 9,235.15	$ 4,122.84
II. JOURNAL			
Expenses:			
Printing	$ 26,000.00	$ 32,131.04	$ 35,000.00
Salaries	8,267.50	7,493.75	8,580.00
Insurance	227.20	236.10	260.00
Payroll Taxes	596.78	339.38	532.05
Engr. & Cuts	1,400.00	1,557.24	1,500.00
Postage	650.00	651.64	900.00
Stationery	100.00		100.00
Clipping Service	150.00	147.20	180.00
Add. & Supplies	100.00	34.96	100.00
Sundry	50.00	10.30	50.00
SJAB Conf.			200.00
Retirement Contribution			500.00
	$ 37,541.48	$ 42,601.61	$ 47,902.05

REFERENCE COMMITTEE RECOMMENDATION—Your Committee approves this report with commendation. This Committee feels that the House of Delegates should take cognizance of the 1967 proposed budget which indicates a deficit spending of over $12,000.00.

HOUSE OF DELEGATES ACTION—Adopted the report of the Finance Committee with the additional notation made by the Reference Committee.

DeKalb County Councilor and Vice Councilor

FLOYD R. SANDERS, M.D., *Decatur, Councilor*
M. FREEMAN SIMMONS, M.D., *Decatur, Vice Councilor*

Additional service to our community has been brought about by increased medical talent through new memberships in the DeKalb County Medical Society during the past year.

The DeKalb County Medical Society continues to spread its influence throughout the county by the active participation in civic affairs. During the past year a full time secretary was employed to help coordinate these activities as well as manage a permanent office for the society which has been recently located in a new professional building near the center of Decatur. A major part of this new office has been the assisting of new residents in their quest for medical care.

During the past year, the DeKalb County Medical Society has established a Trust Fund for the specific purpose of assisting medical and paramedical education in the form of loans to qualified students. For several years, the society has awarded scholarships to deserving and qualified students entering nursing school. Three such scholarships were awarded during the past year.

The center of medical activity in the county continues to be concentrated around Emory University Hospital, Egleston Hospital for Children, Aidmore Childrens Hospital, Scottish Rite Hospital, and DeKalb General Hospital which still plans to double its bed capacity.

It has been our pleasure to attend all meetings of Council during the past year.

Counties and Secretaries	Members December 31, 1966 MAG Dues Paying Only	Members December 31, 1966 AMA Dues Paying Only	Members December 31, 1965 MAG Dues Paying Only	Members December 31, 1965 AMA Dues Paying Only
DeKalb				
C. E. Foster				
Decatur	163	152	159	147

REFERENCE COMMITTEE RECOMMENDATION—Your Committee recommends approval with commendation.

HOUSE OF DELEGATES ACTION—Adopted the report of the DeKalb County Medical Society Councilor and Vice Councilor as recommended by the Reference Committee.

Cobb County Councilor

W. C. Mitchell, M.D., *Smyrna*

Attended all council meetings during the past year—actions and proceedings of same reported to county medical society for information and consideration.

Counties and Secretaries	Members December 31, 1966 MAG Dues Paying Only	Members December 31, 1966 AMA Dues Paying Only	Members December 31, 1965 MAG Dues Paying Only	Members December 31, 1965 AMA Dues Paying Only
Cobb				
L. G. Fortson				
Marietta	117	115	112	105

REFERENCE COMMITTEE RECOMMENDATION—Your Committee recommends approval with commendation.

HOUSE OF DELEGATES ACTION—Adopted the report of the Cobb County Medical Society Councilor as recommended by the Reference Committee.

Ninth District Councilor

Charles R. Andrews, M.D., *Canton*

Ninth District Councilor has attended all meetings of the Council of MAG and again wishes to commend and praise Dr. Paul Scoggins, Vice-Councilor, for his continued active interest and attendance. It is felt that the appointing of the deputy councilors in each component society will prove to be a most important step toward strengthening our organization.

As is customary, Ninth District holds two meetings a year. The September meeting was held in Winder and the April meeting in Gainesville. Both Barrow and Hall County Medical Societies were excellent hosts and as usual outstanding scientific programs were presented.

It has again been a pleasure to serve as Councilor from the Ninth District. Following is the comparative membership standings:

Counties and Secretaries	Members December 31, 1966 MAG Dues Paying Only	Members December 31, 1966 AMA Dues Paying Only	Members December 31, 1965 MAG Dues Paying Only	Members December 31, 1965 AMA Dues Paying Only
Barrow				
C. B. Skelton				
Winder	7	6		
Blue Ridge				
C. M. Berry				
Ellijay	8	5	8	5
Chattahoochee				
C. B. Teal, Jr.				
Lawrenceville	20	16	18	15
Cherokee-Pickens				
Arthur M. Hendrix				
Canton	14	13	15	14
Elbert-Franklin-Hart				
H. E. Campbell				
Elberton	23	13	22	16
Habersham				
T. N. Lumsden				
Clarkesville	14	11	16	12
Hall				
A. D. Wright, Jr.				
Gainesville	57	52	55	49
Jackson-Banks				
A. A. Rogers, Jr.				
Commerce	9	7	15	13
Rabun				
Richard J. Turner				
Clayton	3	3	4	3
Stephens				
D. A. Crippen				
Toccoa	19	18	17	16
	174	144	170	143

REFERENCE COMMITTEE RECOMMENDATION—Your Committee recommends approval with commendation.

HOUSE OF DELEGATES ACTION—Adopted the report of the Ninth District Medical Society Councilor as recommended by the Reference Committee.

Ninth District Vice Councilor

Paul T. Scoggins, M.D., *Commerce*

Ninth District has been represented by Councilor, Vice Councilor or both at all meetings. Councilor will report for the district.

REFERENCE COMMITTEE RECOMMENDATION—Your Committee recommends approval with commendation.

HOUSE OF DELEGATES ACTION—Adopted the report of the Ninth District Medical Society Vice Councilor as recommended by the Reference Committee.

Professional Conduct

T. A. Sappington, M.D., *Chairman*

The Chairman of your Professional Conduct Committee is happy to report that it has held no meetings during the past year—no problems were referred to it.

After having attended the Medical Ethics Workshop held by the MAG, one cannot really believe that there

have been no problems as to ethics in the entire Medical Association of Georgia during the year 1966, but rather there are marked deficiencies in our present licensure laws.

REFERENCE COMMITTEE RECOMMENDATION—Your Committee recommends approval of this report.

HOUSE OF DELEGATES ACTION—Adopted the report of the Professional Conduct Committee as recommended by the Reference Committee.

Resolution No. 4

TITLE XIX

F. William Dowda, M.D.
For Fulton County Medical Society

RESOLVED, that, under Title XIX, the Department of Family & Children Services refer patients to private physicians in their offices, with the usual and customary fee being charged, and the money to be dispensed by a responsible fiscal administrator and with the right of direct billing and free choice of physician.

REFERENCE COMMITTEE RECOMMENDATION—Your Committee wishes to note this Resolution was changed by the author at the first session of the House of Delegates to read as follows:

"RESOLVED, that, the State Agency which administers Title XIX refer patients to private physicians in their offices, with the usual and customary fee being charged, and the money to be dispensed by a responsible fiscal administrator and with the right of direct billing and free choice of physician."

Your Committee approves this resolution with the deletion of the words "in their offices."

HOUSE OF DELEGATES ACTION—Adopted Resolution No. 4, Title XIX as amended by the Reference Committee.

Late Report No. 3

MEDICAL REVIEW AND NEGOTIATING COMMITTEE

Henry S. Jennings, *Chairman*

Following the last report of this Committee to the House of Delegates a meeting was held with representatives of the John Hancock Company (Carrier Part B—P.L. 89-97) which resulted in:

1. Adoption of "Proposed Policy of MAG Fee Negotiating Committee in Relation to Administration of the New 'Medicare' Law as it affects Physician Charges."
2. Adoption of "Proposed State Medical Review Board Procedure for Claims Review."
3. Adoption of "Medical Review Committee Structure and Procedures."
4. Nomination by MAG of candidates for Medical Consultant to be selected by John Hancock Company.

Since it was impossible to negotiate a contract with Military Medicare (ODMC) on the basis of usual and customary fees without assuming financial liability for MAG, a new contract with ODMC was endorsed. This new contract contains increases in most of the maximum allowances on the Military Medicare fee schedule. In the past year the attending physician has been requested to list his usual and customary fee for the procedure concerned in order for certain data to be obtained for future use in negotiating with Military Medicare. A meeting with Military Medicare Representatives had been scheduled prior to the Annual Session, but due to circumstances beyond control of the Committee this conference has been rescheduled for mid-May, 1967.

A review of the letter of agreement with the Veteran's Administration was undertaken with Dr. Sam Blank, of the Atlanta VA Regional Office. As a result of Committee action a letter was written to Dr. Blank expressing desire to negotiate a new letter of agreement based on the concept of usual and customary fees with establishment of an appropriate review mechanism. At this time (4-18-67) no reply has been received from the Veteran's Administration; and, in accordance with the recommendation of the Medical Review and Negotiating Committee, it is recommended that the letter of agreement between the MAG and the Veteran's Administration be terminated as provided for.

Although not arising as a direct result of negotiations with this Committee, note should be taken that effective January 1, 1967, a substantial increase in fees for services rendered Vocational Rehabilitation clients was announced. The Director of Vocational Rehabilitation has also stated that the agency will work toward "usual and customary" fees as rapidly as possible. It is believed that the attitude of this State agency was largely influenced by the activities of this Committee and individual Committee members.

A preliminary meeting with representatives of the Workmen's Compensation Board was attended by Committee Vice Chairman John McCain, President-Elect John T. Mauldin and the Chairman. Exploration of various aspects of Workmen's Compensation regulations and limitations was undertaken. Further meetings are planned, but at this time it can be announced that consideration is being given by Workmen's Compensation to revising the out-dated and inadequate Workmen's Compensation of $2,500.00 maximum medical payments, and eventually working toward payment of usual and customary fees. Some of these changes will necessitate action by the General Assembly and when possible it is recommended that MAG members and appropriate officials assist in presenting pertinent information to the elected members of this body. There is every reason to believe that the representatives of the Workmen's Compensation Board will wish to work closely with representatives of MAG.

REFERENCE COMMITTEE RECOMMENDATION—Your Committee approves this report with commendation. Your Committee recommends that the House of Delegates emphasize the general principle of negotiation on the basis of usual and customary fees.

HOUSE OF DELEGATES ACTION—Adopted Late Report No. 3, Medical Review and Negotiating Committee with the additional recommendation made by the Reference Committee.

Supplemental Report of Council No. G

TITLE XIX—USUAL AND CUSTOMARY FEES AND DIRECT BILLING

Charles R. Andrews, Jr., M.D., *Chairman*

In consideration of the matter of implementation of the Title XIX program, the MAG Council submits the following Supplemental Report (in the form of a resolution) to the House of Delegates and urges its adoption:

WHEREAS, the cost of physician's services is included as one of the covered medical costs under Title XIX, P.L. 89-97, and

WHEREAS, the provision of quality medical care

for the indigent and medically indigent citizens is the primary aim of this program, and

WHEREAS, the removal of barriers between physician and patient is essential for the provision of quality medical care, and

WHEREAS, the pattern of private medical care in this country has proved itself to be the best means of providing quality medical care at reasonable cost,

THEREFORE, BE IT RESOLVED, that recipients of medical care under Title XIX should be incorporated in the private sector of medical care with free choice of physician, and

BE IT FURTHER RESOLVED, that payments for physician's services should be on a usual and customary basis with the option of direct billing, and

BE IT FURTHER RESOLVED, that a fiscal intermediary with experience in the health insurance field be utilized in the processing and payment of physician's fees.

REFERENCE COMMITTEE RECOMMENDATION—Your Committee recommends approval of this report.

HOUSE OF DELEGATES ACTION—Adopted Supplemental Report of Council No. G, Title XIX as recommended by the Reference Committee.

It was moved by Reference Committee No. 1 Chairman, M. K. Cureton, LaFayette, and duly seconded that the report of the Reference Committee be approved as amended, and it was so ordered.

Report of Reference Committee No. 2

Irving Victor, M.D., Savannah, Chairman

(The following reports as presented to this Reference Committee are printed in full with the Reference Committee's recommendation and the action pursuant to it taken by the House of Delegates.)

Reference Committee No. 2 met at 2:30 p.m., Thornwood Suite, Marriott Motor Hotel, Atlanta, Georgia, on May 1, 1967. Members of the Committee present included: Irving Victor, Savannah, Chairman; B. S. Hardman, Gainesville, Secretary; Edwin Evans, Atlanta; E. R. Hensley, Waynesboro; and Gordon Jackson, Macon.

Annual Session

THOMAS Q. SPITZER, M.D., *Chairman*

The gradual decline in attendance is still the major problem of the Annual Session Committee. The meetings have been shortened to the fewest days possible and efforts have been made to strengthen the scientific program.

The committee feels that a well attended Annual Session is vital to the health of the Association, therefore any suggestions which might stimulate attendance will be most welcome.

REFERENCE COMMITTEE RECOMMENDATION—Your Reference Committee concurs with the sentiment that a well-attended Annual Session is vital to the health of the Association and recommends approval of this report.

HOUSE OF DELEGATES ACTION—Adopted the report of the Annual Session Committee as recommended by the Reference Committee.

Traffic Safety

FLEMING JOLLEY, M.D., *Chairman*

The events of the Traffic Safety Committee were reviewed in the February, 1967 issue of the *Journal of the Medical Association of Georgia*. The problem continues to increase and statistics indicate that Georgia traffic injuries and fatalities will again reach record figures in 1967. This remains the number one cause of death from age one through 45.

The Woman's Auxiliary Committee dealing with this problem is to be commended, as are the constituent local Auxiliary Committees for their support and active work.

The Medical Association of Georgia Committee needs a more active liaison with the local and district level groups through established committees.

I recommend that each society form a standing Accident Prevention and Traffic Safety Committee with auxiliary representation and that the societies forward the names of these individuals to MAG Headquarters.

Through these committee networks it is hoped that improved emergency care and transportation of the injured can be developed in both rural and urban areas.

REFERENCE COMMITTEE RECOMMENDATION—Your Reference Committee recommends approval of the report, and encourages the Committee to pursue the establishment of committees in each society where feasible.

HOUSE OF DELEGATES ACTION—Adopted the report of the Traffic Safety Committee as recommended by the Reference Committee.

Disaster Medical Care

VIRGIL B. WILLIAMS, M.D., *Chairman*

This committee has had no formal meeting during the year. The chairman has been in correspondence with all committee members.

It is felt that a file containing names and addresses of all ancillary medical personnel who received training in the Armed Forces and who are presently engaged in other occupations would be useful. The Chairman has written a letter to the State Parents and Teachers Association inquiring as to their interest and aid in compiling this list. To date no firm plans have been formulated in this project.

Liaison with the State Civil Defense authorities has been maintained. This consists of their pledge to furnish transportation and housing for medical personnel at major disaster scenes.

The committee has been ready at all times to assist the local societies in planning Disaster Medical Care Programs. Information concerning Disaster Medical Care programs has been distributed to county societies.

REFERENCE COMMITTEE RECOMMENDATION—Your Reference Committee recommends approval of the report.

HOUSE OF DELEGATES ACTION—Adopted the report of the Disaster Medical Care Committee as recommended by the Reference Committee.

School Child Health

FRED L. ALLMAN, M.D., *Chairman*

This Committee has continued during the past year to follow through on projects which have earlier been initiated and also to instigate studies in several new areas:

I. *Follow-up on existing projects.*

A. Smoking and Health, Teacher Resource Kits which were prepared last year in cooperation

President-Elect—Charles R. Andrews, Jr., Canton, nominated by F. G. Eldridge, Valdosta; seconded by David Henry Poer, Atlanta.

There being no other nominations for the office of President-Elect, on motion duly made and seconded, the nominations were closed and President Brown instructed the Secretary to cast a unanimous ballot for Charles R. Andrews, Jr. as President-Elect of the Medical Association of Georgia.

Second Vice President—John T. Godwin, Atlanta, nominated by J. G. McDaniel, Atlanta; seconded by Milford Hatcher, Macon; Charles Cowart, LaGrange; Dan Bateman, Albany; Walter Shepeard, Augusta; and Hamil Murray, Gainesville.

Fleming L. Jolley, Atlanta, nominated by William Logan, Atlanta; seconded by Preston Ellington, Augusta; J. D. Martin, Atlanta; and John Kirk Train, Savannah.

There being no other nominations for the office of Second Vice President, on motion duly made and seconded, the nominations were closed.

Councilors and Vice Councilors

President Brown noted that according to the MAG Bylaws as revised last year, under Chapter V, Section 2, Nominations, it stated that if a District Society or a Component County Medical Society is entitled to direct representation by one or more Councilors and Vice Councilors, the Secretary of MAG must receive, no later than 15 days before the Annual Session, written notice of the election of Councilors and Vice Councilors. Dr. Brown said that these Councilors and Vice Councilors may then be considered by the Association as duly elected, and that nominations from the floor are only to be accepted in the absence of such notification of election to the Secretary of MAG 15 days in advance of the Annual Session. President Brown stated that he was happy to report that the District and County Medical Societies, whose Councilors and Vice Councilors terms of office have expired, have duly notified MAG of their election in accordance with the MAG Bylaws and that no nominations from the floor are in order. Dr. Brown then read the notification of these elections as received by MAG from the Secretary of the respective District and County Medical Societies as follows:

First District Councilor—C. E. Bohler, Brooklet—1967-70
First District Vice Councilor—L. H. Griffin, Claxton—1967-70
Second District Councilor—John D. Bateman, Albany—1967-70
Second District Vice Councilor—Homer L. Lassiter, Arlington—1967-70
Third District Councilor—Joseph T. Christmas, Vienna—1967-70
Third District Vice Councilor—John H. Robinson, III, Americus—1967-70

President Brown then announced that due to the resignation of the Vice Councilor from Cobb County Medical Society, an election was held by the Cobb County Medical Society to fill the unexpired term of Dr. Murl M. Hagood, Marietta. Dr. Brown stated that MAG had been notified by the County Medical Society that the results of the election to fill this vacancy were as follows:

Cobb County Medical Society Vice Councilor—Remer Y. Clark, Marietta—1967-69

Fulton County Medical Society Councilor—J. Harold Harrison, Atlanta—1967-70
Fulton County Medical Society Vice Councilor—Frank Wilson, Atlanta—1967-70
Georgia Medical Society Councilor—Lee Howard, Jr., Savannah—1967-70
Georgia Medical Society Vice Councilor—W. W. Osborne, Savannah—1967-70

AMA Delegates and Alternate Delegates

President Brown called for nominations for MAG Delegates to the American Medical Association and he stated that he would identify the elective posts by announcing the name of the incumbent in office and also by giving the term of office.

AMA Delegate (for the office held by J. W. Chambers, LaGrange; the term beginning January 1, 1968 and expiring December 31, 1969)—J. W. Chambers, LaGrange, nominated by Willis Hendrix, LaGrange; seconded by R. C. McGahee, Augusta; Roy Gibson, Columbus; George Alexander, Forsyth.

There being no further nominations, on motion duly made and seconded, it was voted to close the nominations and President Brown instructed the Secretary to cast a unanimous ballot for the election of J. W. Chambers.

AMA Alternate Delegate (for the office held by Neal Yeomans, Waycross; the term beginning January 1, 1968 and expiring December 31, 1969)—Neal F. Yeomans, Waycross, nominated by F. G. Eldridge, Valdosta and ruled duly seconded.

There being no further nominations, on motion duly made and seconded, it was voted to close the nominations, and President Brown instructed the Secretary to cast a unanimous ballot for the election of Neal F. Yeomans.

AMA Delegate (for the office held by John S. Atwater, Atlanta; the term beginning January 1, 1968 and expiring December 31, 1969)—John S. Atwater, Atlanta, nominated by Edwin Evans, Atlanta; seconded by Preston Ellington, Augusta.

There being no further nominations, on motion duly made and seconded, it was voted to close the nominations and President Brown instructed the Secretary to cast a unanimous ballot for the election of John S. Atwater.

AMA Alternate Delegate (for the office held by Henry S. Jennings, Gainesville; the term beginning January 1, 1968 and expiring December 31, 1969)—Henry S. Jennings, Gainesville nominated by Hamil Murray, Gainesville; seconded by George Dillinger, Dublin and William Dowda, Atlanta.

There being no further nominations, on motion duly made and seconded, it was voted to close the

nominations and President Brown instructed the Secretary to cast a unanimous ballot for the election of Henry S. Jennings.

Dr. Charles Watkins, Ellijay, was recognized and stated that Charles Andrews, Canton, had resigned as Ninth District Councilor and that Dr. Paul Scoggins, Commerce, had been elected Councilor to fill the unexpired term of Dr. Andrews. Dr. Watkins further stated that at the recent Ninth District meeting, Dr. Robert G. Tether, of Gainesville, had been nominated to fill the unexpired term of Vice Councilor vacated by Dr. Scoggins. Dr. Watkins then nominated Dr. Robert G. Tether, Gainesville, as Vice Councilor of the Ninth District and this motion was duly seconded and approved.

GP of the Year Award

President Brown then called for nominations for the Medical Association of Georgia "General Practitioner of the Year" Award. The following nominations were made:

C. H. Bryant, Comer; nominated by the Crawford W. Long Medical Society.

Robert V. Brandon, Griffin; nominated by the Spalding County Medical Society.

George F. Hagood, Marietta; nominated by the Cobb County Medical Society.

Dr. Brown announced that those nominated were officially received and that the House of Delegates would select from these three nominations the 1967 recipient of the "General Practitioner of the Year" Award, which would be presented at the final Business Session, May 2.

There being no further business, the First General Business Session of the 113th Annual Session of the Medical Association of Georgia was recessed at 5:55 p.m.

MAG GENERAL BUSINESS SESSION (Second Session)

113th ANNUAL SESSION OF THE MEDICAL ASSOCIATION OF GEORGIA

MONDAY, MAY 1, 1967

The Second General Business Session of the 113th Annual Session of the Medical Association of Georgia was called to order by President Walter Brown, Savannah, at 9:10 a.m., in the North Ballroom, Marriott Motor Hotel, Atlanta, Georgia, on May 1, 1967.

The invocation was given by the Rev. William L. Self, Pastor, Wieuca Road Baptist Church, Atlanta.

The official welcome to the Association's membership was delivered by William Moore, Atlanta, President of the Fulton County Medical Society, in behalf of the membership of the Society as hosts for this 113th Annual Session.

President Brown then called on President-Elect John T. Mauldin, of Atlanta, who presented his Incoming President's Address to the Association's membership on the Association's future activities for the year 1967-68. (This President-Elect's speech and the action pursuant to it will be found in the proceedings of the House of Delegates to which it was referred.)

President Brown then welcomed Mrs. James H. Manning, Marietta, President-Elect of the Woman's Auxiliary to the Medical Association of Georgia. Mrs. Manning delivered the report of the MAG Auxiliary in behalf of Mrs. John Meier, Albany, President of the MAG Auxiliary.

MAG Memorial Service

President Walter Brown then closed the Second MAG General Business Session on a solemn note with the convening of the annual MAG Memorial Service. President Brown led the membership in repeating the 23rd Psalm in memory of those Medical Association of Georgia members deceased during the past year. Dr. Brown read the names of these departed colleagues as follows:

Anita C. Adams, Philadephia, Pennsylvania, November 1, 1966
J. C. Anderson, Macon, March 17, 1967
William T. Ariail, Cornelia, September 12, 1966
D. A. Bagley, Austeel, June 19, 1966
William H. Bateman, Atlanta, August 27, 1966
Harry B. Baxley, Donalsonville, November 9, 1966
W. R. Bedingfield, Augusta, October 10, 1966
Helen Bellhouse, Atlanta, April 19, 1967

F. Kells Boland, Jr., Atlanta, January 12, 1967
D. T. Bond, Danielsville, April 24, 1966
J. E. Bradford, Dalton, November 3, 1966
D. M. Bradley, Waycross, November 3, 1966
William J. Burdashaw, Augusta, December 21, 1966
Winston E. Burdine, Atlanta, January 7, 1967
J. K. Burns, Gainesville, January 14, 1967
R. Frank Cary, Macon, October 11, 1966
G. C. Cole, Dallas, January 18, 1967
T. W. Collier, Brunswick, December 13, 1966
W. B. Crawford, Jr., Savannah, May 24, 1966
Shelley C. Davis, Atlanta, May 22, 1966
Cameron B. Day, Bainbridge, September 22, 1966
J. C. Dover, Clayton, June 23, 1966
Albert N. Dykes, Savannah, March 12, 1967
M. J. Ellis, McDonough, June 11, 1966
W. P. Ellis, Pine Mountain, December 16, 1966
Earnest Felder, Atlanta, October 30, 1966
H. C. Frech, Savannah, November 9, 1966
John P. Garner, Marietta, April 7, 1967
Glenville A. Giddings, Atlanta, June 6, 1966
Ben J. Goldman, Hazelhurst, June 5, 1966
W. C. Goodpasture, Atlanta, November 5, 1966
William E. Goodyear, Atlanta, October 7, 1966
Howard Hailey, Atlanta, March 26, 1967
William W. Hodges, Atlanta, January 18, 1967
Enon C. Hopkins, Augusta, June 13, 1966
George M. Hutto, Columbus, April 12, 1967
Joseph W. Iseman, Atlanta, April 22, 1967
J. A. Johnson, Jr., Atlanta, July 11, 1966
J. Harry Lange, Atlanta, September 3, 1966
Harry R. Lipton, Atlanta, February 24, 1967
J. E. Mercer, Vidalia, January 8, 1967
King W. Milligan, Augusta, January 1, 1967
William B. Nalley, Gainesville, January 15, 1967
Frank L. O'Conner, Rossville, August 3, 1966
Paul L. Schroeder, Atlanta, October 26, 1966
A. Leslie Stephens, Atlanta, October 21, 1966
Cosby Swanson, St. Petersburg, Florida, October 1, 1966
H. S. Titshaw, Avondale Estates, June 14, 1966
Edward D. Wells, Jr., LaGrange, December 2, 1966
G. O. Whelchel, Athens, May 24, 1966
G. W. Willis, Ocilla, January 10, 1966
L. E. Wilson, Atlanta, August 8, 1966

There being no further business, President Brown adjourned the Second MAG General Business Session at 9:45 a.m.

MAG GENERAL BUSINESS SESSION (Third Session)

113th ANNUAL SESSION OF THE MEDICAL ASSOCIATION OF GEORGIA

TUESDAY, MAY 2, 1967

The Third General Business Session of the 113th Annual Session of the Medical Association of Georgia was called to order by President Walter Brown, Savannah, at 9:10 a.m., in the North Ballroom, Marriott Motor Hotel, Atlanta, Georgia on May 2, 1967.

Fifty-Year Certificates

Immediate Past President George Alexander, of Forsyth, presented MAG Fifty-Year Certificates and Pins to physicians members who have practiced medicine for 50 years or more. These presentations were made to the following physicians:

Rudolph A. Bartholomew, Atlanta; John D. Blackburn, Thomaston; John K. Burns, Jr., Gainesville; Robert L. Carter, Thomaston; Ovid H. Cheek, Dublin; Zachary S. Cowan, Atlanta; Willis P. Jordan, Sr., Columbus; Floyd W. McRae, Atlanta; B. B. Mattox, Elberton; Walter E. Mobley, Macon; Trammel Starr, Dalton; Charles B. Upshaw, Atlanta; and Leonard W. Willis, Bainbridge.

Scientific Exhibits Awards

John N. McClure, Atlanta, Chairman of the Association's Scientific Exhibit Awards Committee, made the following presentations:

First Place Award—"Progressive Exophthalmos—New Surgical Tecnique Used In Treatment"

Joel P. Smith, Sr., M.D., Atlanta, Georgia

Second Place Award—"Diagnosis and Treatment of Juvenile Rheumatoid Arthritis"

Joseph H. Patterson, M.D.; W. Ronald Tipton, M.D.; E. Stephen Edwards, M.D.; I. Lehman Lindsey, M.D., and Brit B. Gay, Jr., M.D., Atlanta, Georgia

Third Place Award—"Catheter Arteriography"

Edgar D. Grady, M.D.; Thomas R. Nolan, M.D., and A. J. Crumbley, M.D., East Point, Georgia

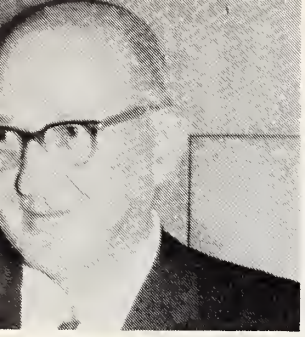
Scientific Exhibits Chairman John McClure also presented the "Aesculapius Award" sponsored by Mead Johnson Company for excellence in scientific exhibits. This award was presented in addition to the First Place Award to Dr. Joel P. Smith, Sr., Atlanta, for his exhibit entitled, "Progressive Exophthalmos—New Surgical Technique Used in Treatment."

GP of the Year Award

Robert Mainor, Smyrna, President of the Georgia Academy of General Practice, presented the medical Association of Georgia "GP of the Year Award" to Dr. George F. Hagood, of Marietta.

Certificates of Appreciation

MAG Secretary, John Rhodes Haverty, Atlanta, presented Medical Association of Georgia Certifi-



Charles R. Andrews, Jr., Canton, 1967-1968 MAG President-Elect.

William H. Masters, M.D., Director of the Reproductive Biology Research Foundation, St. Louis, addresses an MAG Scientific Section Meeting on "Human Sexual Behavior."

John T. Mauldin, Atlanta, new MAG President.

Guest Speaker, Roswell K. Brown, M.D., New York City, Associate Director of Field Program, Committee on Trauma of the American College of Surgeons, speaks with Miss Merrilie Davis, Atlanta, Managing Editor, JMAG.

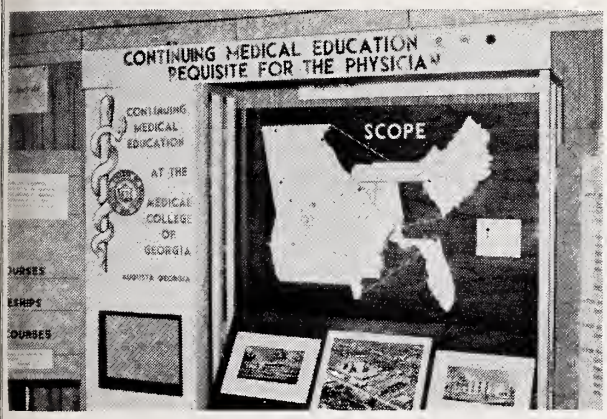
Dr. Andrews, new President-Elect (left) receives congratulations from MAG Secretary, J. Rhodes Haverty, Altanta (right).

T. A. Sappington, Thomaston, signs in at the MAG Registration Desk.

Miss Camille Day, Atlanta, MAG Secretary.

113th Annual Session Atlanta

First Place Scientific Exhibit Award was presented to Joel P. Smith, Sr., M.D., Atlanta, for his exhibit, "Progressive Exophthalmos—New Surgical Technique Used in Treatment."



The Medical College of Georgia, Augusta, presented a booth on, "Continuing Medical Education—Requisite for the Physician."

M. K. Cureton, LaFayette, Delegate from Walker-Catoosa-Dade County Medical Society, speaks before the Second Session of the MAG House of Delegates.

Miss Thelma V. Franklin, Atlanta, MAG Staff Business Manager, received a Certificate of Appreciation for 15 years' service.

Reference Committee No. 5 hears AMA Delegate, J. W. Chambers, LaGrange, as he reports to the Committee. Members of the Committee shown (left to right) Carl Pittman, Jr., Tifton; Z. V. Morgan, Decatur, Vice-Chairman; and Fred Smith, Valdosta.

New President, Dr. Mauldin and new President-Elect, Dr. Andrews congratulate each other.

Reference Committee No. 2, Irving Victor, Savannah, Chairman (center); with Mr. Dub Wallace, Atlanta, MAG Staff Field Representative (head of table); B. S. Hardman, Gainesville, and Edwin Evans, Atlanta.

cates of Appreciation to persons recognized by the Association for their activities in behalf of the Medical Association of Georgia. Dr. Haverty presented these certificates as follows:

Walter E. Brown, M.D. as MAG President 1966-67; Lamar B. Peacock, M.D. as MAG First Vice President 1966-67; Charles R. Andrews, Jr., M.D. as Chairman of Council 1965-67; Frank A. Wilson, III, M.D. as Third District Councilor 1961-67; T. A. Peterson, M.D. as Georgia Medical Society Councilor 1964-67; Mrs. John A. Meier as President, Woman's Auxiliary to MAG 1966-67; Fleming L. Jolley, M.D. as Chairman, MAG Committee on Traffic Safety; George R. Dillinger, M.D. as Chairman, MAG Committee on Medical Education; Robert E. Wells, M.D. as Chairman, MAG Committee on Public Service 1965-67; Peter Hydrick, M.D. as Chairman, MAG Committee on Medical Ethics; Thomas Q. Spitzer, M.D. for Continuing Distinguished Service as Chairman, MAG Annual Session Committee; Eugene L. Griffin, M.D. for Continuing Distinguished Service as Chairman, MAG Committee on Maternal and Infant Welfare; John L. Elliott, M.D. as Chairman, MAG Committee on Constitution and Bylaws; Miss Thelma V. Franklin as MAG Staff Business Manager for 15 years; and Mr. M. D. Krueger as MAG Staff Executive Secretary for 15 years.

Special Presentation

President Walter Brown called on Mr. Maurice Stevenson, Medicare Administrator, John Hancock Mutual Life Insurance Company, Atlanta, who presented the Medical Association of Georgia with a framed picture of "The Intern" for the MAG Headquarters Office Building. This presentation was made in appreciation of the cooperation shown by the Association in conjunction with the John Hancock Company.

Site of 1969 Annual Session

President Brown recognized Dr. Irving Victor of Savannah, who invited the Medical Association of Georgia to convene their 1969 Annual Session in Savannah. Dr. Victor presented this invitation in behalf of Georgia Medical Society.

Dr. C. S. Britt, of Brunswick, also invited the Medical Association of Georgia to convene their 1969 Annual Session in behalf of Glynn County in Brunswick, Georgia.

The Association voted to accept the invitation from the Georgia Medical Society, and thereby convene their 1969 MAG Annual Session in Savannah, Georgia.

Official Attendance Record

President Brown announced that the official attendance of the 113th Annual Session of the Medical Association of Georgia held in Atlanta, Georgia, April 30-May 2, 1967, was as follows:

MAG Members—615, Other Physicians—42, Guests—158, and Exhibitors—267; thereby making a grand total of 1,082 registered.

Election Results

President Brown called on Tellers Committee Chairman George Alexander, who announced the following election results:

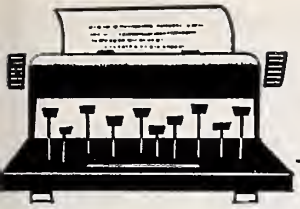
President-Elect: Charles R. Andrews, Jr., Canton
Second Vice President: Fleming L. Jolley, Atlanta
AMA Delegate: (January 1, 1968-December 31, 1969) —J. W. Chambers, LaGrange
AMA Alternate Delegate: (January 1, 1968-December 31 1969)—Neal Yeomans, Waycross
AMA Delegate: (January 1, 1968-December 31, 1969) —John S. Atwater, Atlanta
AMA Alternate Delegate: (January 1, 1968-December 31 1969)—Henry S. Jennings, Gainesville

Installation of Officers

The final order of business was the installation of 1967-68 Officers and Councilors and Delegates as follows:

President—John T. Mauldin, Atlanta (1968)
President-Elect—Charles R. Andrews, Jr., Canton (1968)
Immediate Past President—Walter E. Brown, Savannah (1968)
First Vice President—M. C. Adair, Washington (1968)
Second Vice President—Fleming L. Jolley, Atlanta (1968)
First District Councilor—C. E. Bohler, Brooklet (1970)
First District Vice Councilor—L. H. Griffin, Claxton (1970)
Second District Councilor—John D. Bateman, Albany (1970)
Second District Vice Councilor—Homer L. Lassiter, Arlington (1970)
Third District Councilor—Joseph T. Christmas, Vienna (1970)
Third District Vice Councilor—John H. Robinson, III, Americus (1970)
Cobb County Medical Society Vice Councilor—Remer Y. Clark, Marietta (1969)
Fulton County Medical Society Councilor—J. Harold Harrison, Atlanta (1970)
Fulton County Medical Society Vice Councilor—Frank Wilson, Atlanta (1970)
Georgia Medical Society Councilor—Lee Howard, Jr., Savannah (1970)
Georgia Medical Society Vice Councilor—W. W. Osborne, Savannah (1970)
Ninth District Vice Councilor—Robert G. Tether, Gainesville (1969)
AMA Delegate—J. W. Chambers, LaGrange (January 1, 1968-December 31, 1969)
AMA Alternate Delegate—Neal Yeomans, Waycross (January 1, 1968-December 31, 1969)
AMA Delegate—John S. Atwater, Atlanta (January 1, 1968-December 31, 1969)
AMA Alternate Delegate—Henry S. Jennings, Gainesville (January 1, 1968-December 31, 1969)

Outgoing President Brown then turned over the gavel of leadership to incoming President John T. Mauldin, who expressed his appreciation to the membership for their cooperation and interest, and there being no further business, President Mauldin adjourned the 113th Annual Session of the Medical Association of Georgia at 12:15 p.m.



EDITORIALS

Charles R. Andrews of Canton Is New MAG President-Elect

CHARLES RENEAU ANDREWS, JR., Canton, Georgia, was selected President-Elect of the Medical Association of Georgia for 1967-1968 at the 113th Annual Session held in May at Atlanta.

Dr. Andrews graduated from Emory University and the Emory University School of Medicine. He served his internship and residency at Grady Memorial Hospital, Atlanta, and upon completion of his postgraduate training entered private practice in Canton.

During 1942-46 he served in the Navy and was Chief of the Surgical Service at a Naval hospital on the island of Okinawa. He attained the rank of Commander while on Okinawa.

Active in Civic Affairs

Dr. Andrews is a member of the First Methodist Church of Canton and has served as Steward and President of the Methodist Men's Club. He holds active membership in the Lion's Club and the Moose Club, and has been active in V.F.W. affairs, acting as Surgeon of the Georgia V.F.W. for 17 years.

As a member of the Cherokee-Pickens County Medical Society, he has served as Secretary and President, and has also served as President of the Ninth District Medical Society.

Dr. Andrews is a member of the American College of Surgeons and is currently serving as President of the Georgia Chapter of the American College of Surgeons. He is a Fellow of the Southeastern Surgical Congress, the Georgia Surgical Society, and the International College of Surgeons.

As a member of the Medical Association of Georgia, he served as a Vice-Councilor from 1952-55, and filled the unexpired term as Councilor of Dr. Bruce Schaefer, Toccoa, when Dr. Schaefer was elected MAG President. Dr. Andrews has served as Councilor of the Ninth District since 1955, and for the past two years has served as Chairman of the MAG Council.

Dr. Andrews is married to the former Elizabeth Henriques of New Orleans and has one son and three daughters.

Highlights of 1967 MAG Annual Session

THE 113TH ANNUAL SESSION of the Medical Association of Georgia, meeting for the first time in Atlanta since 1961, drew a large attendance of member and non-member physicians and guests from across the State. The two and a half day meeting, April 30 to May 2, was tightly scheduled as organized medicine's "biggest show" in Georgia presented a full scientific program, meetings of the MAG House of Delegates and general business sessions. A notable Sunday afternoon scientific session featuring Dr. William H. Masters speaking on, "Human Sexual Behavior" drew an overflow crowd estimated to be in excess of 500 people.

Among the many reports and resolutions presented to the House of Delegates for consideration were: the Title XIX Program; medical disciplinary board; election of MAG Officers by the House of Delegates; an open drug formulary for use in the State's Drug Vendor Program; special study committees on central billing for county, state and AMA dues, and

on MAG finances generally; medical programs under the Office of Economic Opportunity; surveys and studies to determine shortages of physicians, nurses and other paramedical personnel; the possible need of a third Georgia medical school; and many others. (A detailed report of each proposal, the subsequent recommendation of the Reference Committees and the final action of the House of Delegates appears elsewhere in this issue of *JMAG*.)

Title XIX

Two resolutions and two supplemental reports on various aspects of the Title XIX program were introduced, considered by Reference Committees and voted on by the House. In separate actions the following was approved by the House of Delegates on this subject: That the agency administering Title XIX refer patients to private physicians, pay usual and customary fees, insure free choice of physicians, dispense monies through a responsible fiscal administrator with experience in the health insurance field, and grant the option of direct billing. The House also voted its approval of reciprocal and cooperative agreements between the Department of Family and Children Services and the Georgia Department of Public Health in the administration of Title XIX, and went on record favoring the administration of Title XIX by the Department of Public Health.

Medical Disciplinary Board

In considering the report of the Committee on Medical Ethics, the Reference Committee recommended, and the House approved, the concept of a separate medical disciplinary board established pursuant to an Act of the General Assembly. The House also approved a Reference Committee recommendation on this matter that provided for the Medical Ethics Committee to draft a bill for introduction in the Georgia General Assembly, but to first submit it to the 1968 meeting of the House of Delegates for approval, rejection or modification.

House of Delegates Election Study Report

In considering the report of one of its own rarely appointed Committees, the House disapproved the election of MAG officers by the House of Delegates, and at the same time turned down an alternative "mail ballot" proposal contained in the same report.

Open Drug Formulary in Drug Vendor Program

Supplemental Report A of the Council recommended that MAG go on record in reaffirmation of the "open drug formulary" policy adopted by the Council. In considering this report the Reference Committee took note of the restrictive formulary being used in the Drug Vendor Program of the Department of Family and Children Services and concluded it was not in the best interest of patient care for recipients under this program. Accordingly, it recommended approval of the Council Supplemental Report which was adopted by the House.

Central Billing

A resolution proposed by the DeKalb County Medical Society calling for the appointment of a Committee to investigate and determine the advisability of MAG converting to a central billing system was approved. Specifically the Committee would be charged with studying the matter of having dues statements emanate from MAG Headquarters direct to the individual physician and returned directly to MAG with rebates going to County Medical Societies for their prorata share of the total dues collected. Inasmuch as such a system would entail an amendment to the Constitution and Bylaws, the matter would have to come before the House again for final approval.

Special Study Committee on Finances

In considering the Reference Committee recommendations on the reports of the President, Immediate Past President and Chairman of Council, the House took the following actions regarding the financial affairs of the Association: Created a Special Finance Committee to study the possible recommendation of a dues increase; study the consideration of payment of travel expenses for Councilors, Delegates and Alternate Delegates; study the need for expansion of MAG Headquarters Building, and/or acquisition of a new Headquarters Building; and, disapproved setting up a special Executive Committee Emergency Fund of $500.

Any recommendations which may be forthcoming from the Special Finance Committee must, pursuant to the action taken by the House of Delegates, come back to the House at the 1968 meeting for approval or rejection.

Office of Economic Opportunity

A resolution, proposing that organized medical society policy be aimed at the elimination of OEO medical programs by phasing such activity into the Title XIX Program, and also to aim policy at the identification of the needs of the people who would be recipients of benefits under such programs, was adopted by the House of Delegates. The resolution also called for introduction of a similar policy statement before the 1967 Annual Meeting of the AMA House of Delegates.

Medical Education

In considering a supplemental report of the Committee on Medical Education the House approved a survey to be made by the Committee to determine the actual and potential shortages of physicians, nurses and other paramedical personnel and also called on the Committee to study the possible need for a third medical school in Georgia.

Other Important House Actions

In other actions of the House it was voted: to encourage the establishment of traffic safety committees at the County Medical Society level, where feasible; to approve payment of usual and customary fees to attending physicians at athletic contests; that MAG bring to public attention the existence of unsafe highways caused by improper warning signs; to put MAG on record in opposition to efforts to equate an optometric examination with a medical eye examination; commendation of GaMPAC for the excellent job done and to urge all physicians and their wives to join GaMPAC; create a Committee to work in the area of hospital clinical charts; and to request the Georgia State Insurance Commissioner to investigate the feasibility of requiring insurance carriers to pay usual and customary fees to qualified physicians assisting in major surgery.

Awards Presented

George Felton Hagood, M.D., Marietta, was awarded a certificate as "General Practitioner of the Year." Joel P. Smith, Sr., M.D., Atlanta, took first place in the Scientific Awards for his exhibit, "Progressive Exophthalmos—New Surgical Technique in Treatment."

New Officers

The following new officers for the 1967-68 year were elected and/or installed at the 1967 Annual Session: John T. Mauldin, Atlanta, President; Charles R. Andrews, Jr., Canton, President-Elect; and Fleming L. Jolley, Atlanta, Second Vice President.

Vacation trip....

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AMA ARCHIVE-LIBRARY OFFERS UNIQUE SERVICES

A young intern, hoping to practice medicine in East Africa after receiving his license, wants to correspond with medical people already practicing there and needs names and addresses. He writes to the American Medical Association Archive-Library for assistance.

A doctor, well established in a practice he has maintained for 20 years, finally gets the opportunity to take his wife on their dream tour of Europe. They will be in Switzerland in July. He wonders if there will be any medical meetings he can attend in Switzerland during their visit. He writes to the Archive-Library for information.

A general practitioner has a patient, a 17-year-old girl, who is planning to attend a year of school in Guatemala. She is a potential surgery patient. He is concerned about the type and quality of medical service available in the region. He writes to the Archive-Library for help.

Just One Dividend

You could be any one of these AMA members who benefit from the services of the AMA Archive-Library, just one dividend of your AMA membership. The Archive-Library services to members include conducting medical literature searches and compiling bibliographies free of charge. Another available aid of great value, the Library's photocopy service, is also free to you. Any article from any journal to which the Library has access can be copied and sent to you for your files.

The Library handles from 1,500 to 1,800 requests similar to those above for information and publications from physician members every month.

Questions and requests may range from the treatment of chlorine inhalation or statistics on human longevity to the latest treatment for Scleroderma or Raynaud's Disease to plans for the mass treatment of large numbers of burned patients.

The AMA Archive-Library upholds the traditional role of the medical library as an adjunct to the postgraduate education of the physician in practice, but it is even more than a library. It is a complete information center.

Not Available at Local Level

As a national medical society library, the Archive-Library is able to provide services not normally available on the local level. A more complete collection of materials allows the Library to supplement local library service. In addition, several special subject collections cover thoroughly such topics as international health, history and the sociology and economics of medicine. The AMA's collection on the sociology and economics of medicine is the best in the world. It contains almost all the English language publications and includes opinions reflected in mass media as well as in scholarly works.

At the core of the Library is a collection of current medical publications. Today, 2,200 journals are received on a regular basis. This is twice the number contained in any average medical school library. These represent all the major publications in medicine and the

allied sciences. In addition to the periodicals, the Library contains 40,000 books. This makes the Archive-Library one of the most complete current medical libraries you will find any place.

Your Needs and Requests

Of course, your needs and requests determine the Library's content. The quantity and type of periodicals and reference books contained in the Library are guided by your requirements and those of the AMA staff.

Perhaps the one thing above all others which sets the AMA Medical Library apart and makes it a true information center is the availability to the Library staff of a unique resource unavailable at many other medical libraries—the professional staff members of the AMA's 20 scientific departments. "The professional staff is here and we can use them," Susan Crawford, director of the Archive-Library, says. "Few other libraries have this type of consultation available. When a doctor writes to us and wants medical opinion or judgment, his question is referred to a consultant on the AMA staff, or to one of many specialists in the country, through the Questions and Answers Department of *JAMA*."

Such referrals are made in numerous areas such as medical physics, cardiology, psychiatry and drug therapy. Physicians on the AMA staff evaluate information for you before it is ever delivered.

For example, a question on drugs which requires clinical and pharmacological judgment is routed to the AMA's Department of Drugs. The staff in that department can research all available material on the subject and isolate the exact information you need.

Fully Qualified Staff

The 26 members of the Archive-Library staff will go to great lengths to give you the information you need, and they are fully qualified to do so. They are especially trained to communicate with physicians—they speak your language. Half of the staff have graduate degrees in various areas and many have two masters degrees, one in library science and another in a chosen field such as economics, history or the biological and social sciences.

If you are a history buff, one of the more interesting areas of the Library is the Archive Section which houses documents and artifacts on the history of American medicine and the AMA. If you are at all interested in the progress of organized medicine, in the AMA or in tracing your ancestry or doing other historical research, the Archives hold a wealth of information for you.

The Library is always improving and enlarging its facilities. The last addition to the services was the International Health Section which has made it possible for all of the Library services to follow you, as a member of the AMA, wherever you go, whether it be the remote mountain stretches of West Pakistan, the rain forests of Brazil or a center of civilization such as Paris.

If You Are Planning a Trip

If you are planning an overseas trip or sabbatical, to set up practice or to attend a meeting or congress, the Library can give you all the information you need on

mudrane®

for

- EMPHYSEMA
- ASTHMA
- CHRONIC BRONCHITIS
- BRONCHIECTASIS

The fast-disintegrating uncoated tablet gives relief in 15 minutes

Each tablet contains:

Potassium Iodide . . . . . 195 mg.
Aminophylline . . . . . 130 mg.
Phenobarbital, Caution: May be habit forming . . . 21 mg.
Ephedrine HCl . . . . . 16 mg.

FEDERAL LAW PROHIBITS
DISPENSING WITHOUT PRESCRIPTION

Precautions: Usual for aminophylline-ephedrine-phenobarbital. Iodides may cause nausea, long use may cause goiter. Discontinue if symptoms of iodism develop.

Iodide contraindications: tuberculosis, pregnancy.

DOSAGE

One tablet, with full glass of water, 3 or 4 times daily.

Dispensed in bottles of 100 and 1000 tablets.

MUDRANE GG—Formula, dosage and package identical to Mudrane—*except*—100 mg. glyceryl guaiacolate replaces the potassium iodide. The value of Mudrane cannot be enjoyed by a small group in which K.I. is contraindicated. Mudrane GG is prepared for this group.

MUDRANE GG ELIXIR—Four 5 cc teaspoonfuls is equivalent to one Mudrane GG tablet. Dosage adjusted to age and weight of child. Mudrane GG Elixir is for pediatric patients and those who think they cannot swallow tablets. Dispensed in pint and half gallon bottles.

WM. P. POYTHRESS & CO., INC.
RICHMOND, VIRGINIA 23217
Manufacturers of ethical pharmaceuticals since 1856

foreign medical organizations, hospital and medical facilities in various countries, living conditions, what you should bring and the locations of the nearest American physician in any country.

The staff can also furnish you with information on a comprehensive and up-to-date listing of medical meetings outside the United States. After you are situated abroad, the Library will continue to provide you with research facilities and photocopy services on specific medical subjects just as they did when you were stateside.

Any of the services of the Archive-Library are available to you by mail, telephone (312-527-1500), TWX (910-221-0300), telex (254-020) or in person. Library hours are 8:30 a.m. to 4:45 p.m. Monday through Friday.

Copies of a "Guide to Services of the Archive-Library Department," a 16-page pamphlet, will soon be available through the AMA for your further information on this AMA service.

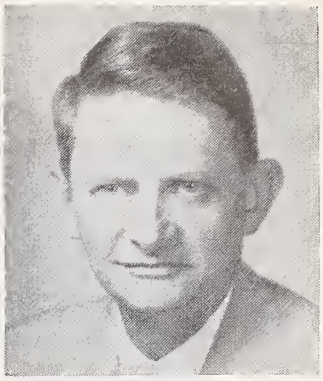
NEW MEMBERS OF THE MEDICAL ASSOCIATION OF GEORGIA

Arellano, Bernard G. Active—Dougherty	500-A North Slappey Drive Albany, Georgia 31701
Barcenas, Domingo D. Active—C. W. Long	205 Talmadge Drive, Apt. 1 Athens, Georgia 30601
Bergeron, Eugene P. Active—Georgia Medical	8 Medical Arts Center Savannah, Georgia 31405
Berlin, Allison, Jr. Active—Fulton	1293 Peachtree Street, N.E. Atlanta, Georgia 30309
Bollet, Alfred J. Active—Richmond	Medical College of Georgia Augusta, Georgia 30902
Coates, Graham Active—Dougherty	420 Fourth Avenue Albany, Georgia 31705
Crank, R. Paul, Jr. Active—DeKalb	2115 Montreal Road Tucker, Georgia 30084
Dominy, Dale E. Service—Fulton	P. O. Box 29457 Atlanta, Georgia 30329
Ellison, Lois T. Active—Richmond	Talmadge Memorial Hospital Augusta, Georgia 30902
Gann, Joyce A. Active—DeKalb	755 Columbia Drive Decatur, Georgia 30030
Grumet, Ross F. Service—Fulton	620 Peachtree Street, N.E. Atlanta, Georgia 30308
Holbrook, William H., Jr. Active—C. W. Long	797 Cobb Street Athens, Georgia 30601
Jowers, J. R. Active—Richmond	3907 Washington Road Martinez, Georgia 30907
Kelly, Julian D., Jr. Active—Georgia Medical	11 W. Gordon Street Savannah, Georgia 31401
McCroskey, Marion M. Active—Fulton	2579 Dellwood Drive, N.W. Atlanta, Georgia 30329
Mulherin, William B. Active—C. W. Long	2010 S. Lumpkin Avenue Athens, Georgia 30601
Otken, Luther B., Jr. Active—Richmond	Talmadge Memorial Hospital Augusta, Georgia 30902
Ray, Larry G. Active—Fulton	300 Boulevard, N.E. Atlanta, Georgia 30312
Sievert, Alan J. Associate—Fulton	99 Butler Street, S.E. Atlanta, Georgia 30303
Stubbs, O. Wytch, Jr. De 2—DeKalb	589 Clairmont Circle Apt. 6 Decatur, Georgia 30033

JOHN HANCOCK SALUTES THE DOCTORS OF GEORGIA

The John Hancock Mutual Life Insurance Company has paid tribute to the cooperation extended by the physicians of Georgia in operating Part B of the Medicare program, which the company administers in Georgia for the federal government. Medicare Administrator Maurice F. Stevenson (left) presented a reproduction of the company's painting. "The Interne," to Walter E. Brown, M.D., of Savannah, the 1966-67 President of the Medical Association of Georgia, during the Association's annual meeting at the Marriott Motor Hotel, Atlanta. The reproduction, which will hang in the Association's Atlanta offices, is one of 76 paintings in the John Hancock "Faces of Freedom" collection of patriotic portraits.

PRESIDENT'S LETTER



KEEP YOUR HEAD UP AND YOUR FEET ON THE GROUND

MANY, MANY YEARS AGO, when I attended a military high school, the commandant often gave the cadet corps this advice before a football game, or a weekend pass—keep your head up and your feet on the ground.

This advice seems particularly appropriate this year, because this is to be a year of decisions.

The Title XIX program will begin during this year. It will pay, for the first time, physicians' services and laboratory fees for those on the welfare rolls at this time. However, by 1970, the medically indigent must be included. Thus, the rules and regulations established now will apply to an increasing percent of our practice in the years to come. The problem of fees and the mechanism of payment has received most attention. There are, however, other problems of equal importance.

The Same Fee?

For example, laboratory tests and x-rays—should the same fee be paid for a procedure in a physician's office, as in the lab of a pathologist? Hospitals are required to have all x-rays read by a radiologist. Should physicians do the same?

These are not my questions, but they have been put to me by others.

The planning phase of the regional medical program will begin serious work this year. Dr. J. Gordon Barrow has requested the formation of local committees. Here is the opportunity to have a voice and to guide this program for the support of private practice of medicine.

There is yet a third program that must be dealt with this year. It is the medical care portion of the Economic Opportunity Administration. The ramifications of this program are too complex to discuss in the remaining space, but I hope to devote a page to it in the near future.

The Medical Association of Georgia has the proper committees headed by knowledgeable and dedicated physicians to meet these challenges.

John T. Mauldin, M.D.
President, Medical Association of Georgia

DEPRESSION

NORPRAMIN®
(desipramine hydrochloride)

ANTIDEPRESSANT FOR RAPID IMPROVEMENT

At the recommended dosage level —initially, 150 mg. per day— gratifying remission of the signs and symptoms of depression typically begins in 2-5 days. Its specificity for depression, rapidity of action and usually mild side effects are significant reasons for prescribing NORPRAMIN (desipramine hydrochloride) in depression of any type . . . any degree of severity.

A few patients, sensitive to central nervous system stimulants may become restless as depression is lifted—in such cases dosage may be reduced or a tranquilizer added.

IN BRIEF:

INDICATIONS: In depression of any kind —neurotic and psychotic depressive reactions; manic-depressive or involutional psychotic reactions.

CONTRAINDICATIONS: Glaucoma, urethral or ureteral spasm, recent myocardial infarction, severe coronary heart disease, epilepsy. Should not be given within two weeks of treatment with a monoamine oxidase inhibitor.

RELATIVE CONTRAINDICATIONS: (1) Patients with a history of paroxysmal tachycardia. (2) Patients receiving concomitant therapy with thyroid, anticholinergics or sympathomimetics may experience potentiation of effects of these drugs. (3) Safety in pregnancy has not been established.

PRECAUTIONS: (1) Outpatient use of desipramine hydrochloride should not be substituted for hospitalization when risk of suicide or homicide is considered grave. (2) If serious adverse effects occur, reduce dosage or alter treatment. (3) In patients with manic-depressive illness a hypomanic state may be induced. (4) Discontinue drug as soon as possible prior to elective surgery.

ADVERSE EFFECTS: Side effects, usually mild, may include: dry mouth, constipation, dizziness, palpitation, delayed urination, "bad taste," sensory illusion, tinnitus, anxiety, agitation and stimulation, insomnia, sweating, drowsiness, headache, orthostatic hypotension, flushing, nausea, cramps, weakness, blurred vision and mydriasis, rash, tremor, allergy, agranulocytosis, altered liver function, ataxia, and extrapyramidal signs.

DOSAGE: Optimal results are obtained at a dosage of 50 mg., t.i.d. (150 mg./day). **SUPPLIED:** NORPRAMIN (desipramine hydrochloride) tablets of 25 mg.; bottles of 50, 500 and 1000; and tablets of 50 mg., in bottles of 30, 250 and 1000.

LAKESIDE

LAKESIDE LABORATORIES, INC., Milwaukee, Wisconsin 53201

SURGICAL THERAPY OF AORTIC VALVULAR DISEASE

Robert G. Ellison, M.D., *Augusta*

THE APPLICATION of methods of extracorporeal circulation has permitted the progressive development of surgical techniques for correction of a wide variety of abnormalities of the aortic valve. The technique utilized and the results obtained depend upon the type of problem encountered.

Aortic Insufficiency

Rheumatic fever is the most common cause of aortic insufficiency. The decision for surgery, as a rule, depends upon the severity of symptoms. Total excision of the leaflets with replacement is the preferred surgical treatment. A prosthesis usually can be inserted with good physiological and clinical improvement with a low operative mortality.

Valve replacement is also necessary in luetic aortic insufficiency. In general, the long term results are not as good and the operative mortality is higher.

Acute aortic insufficiency, resulting from bacterial infection, dissecting aneurysm and trauma, is tolerated poorly. Although usually infection can be controlled and surgery performed electively, occasionally destruction of leaflets is so severe that the patient succumbs to heart failure before infection can be eliminated. Recent reports advocate early surgical intervention, even in the presence of active infection, if heart failure cannot be adequately controlled.

Localized dissection may cause displacement or distortion of the leaflets. Since the aortic valve itself is usually normal, as in the case of aneurysm in Marfan's syndrome, frequently competency can be restored by partial bicuspidization with or without resection of the ascending aorta. Sometimes valve replacement is necessary. Because of the nature of the primary disease and problems relating to reconstruction of the aorta, the risk of surgery is higher than in other forms of aortic insufficiency.

Traumatic laceration of leaflets sometimes can be repaired by simple suture, although replacement may be necessary.

Occasionally predominant insufficiency occurs from congenital bicuspid deformity of the valve. It is desirable in children to defer replacement of the valve until maximal growth is attained.

In acquired aortic stenosis (rheumatic, arteriosclerotic, etc.) the valves are usually extensively calcified and repair is more difficult. Valve replacement is essential. The small size of the aortic annulus and deficiency of substance into which sutures must be placed for anchoring the prosthesis are common problems. The incidence of complications is higher in this group than when aortic insufficiency is the primary disease. In most cases, however, the valve can be satisfactorily anchored with a low incidence of leakage.

Congenital aortic stenosis is commonly repaired by incision of the fused commissures of the bicuspid valve. The surgical mortality is low and clinical results are good. Recent studies, however, indicate hemodynamic results less satisfactory than had been originally anticipated and usually replacement of the valve is necessary later. It is felt that surgery in children should be reserved for those who are in difficulty because of severe obstruction.

The most satisfactory results of valve replacement have been accomplished with the Starr-Edwards or the Cutter prosthetic valves. Operative mortality is less than ten per cent. Problems relating to mechanical complications, embolization, and infection should be minimized by increasing technical experience, improvement in valve design, and control of infections elsewhere in the body.

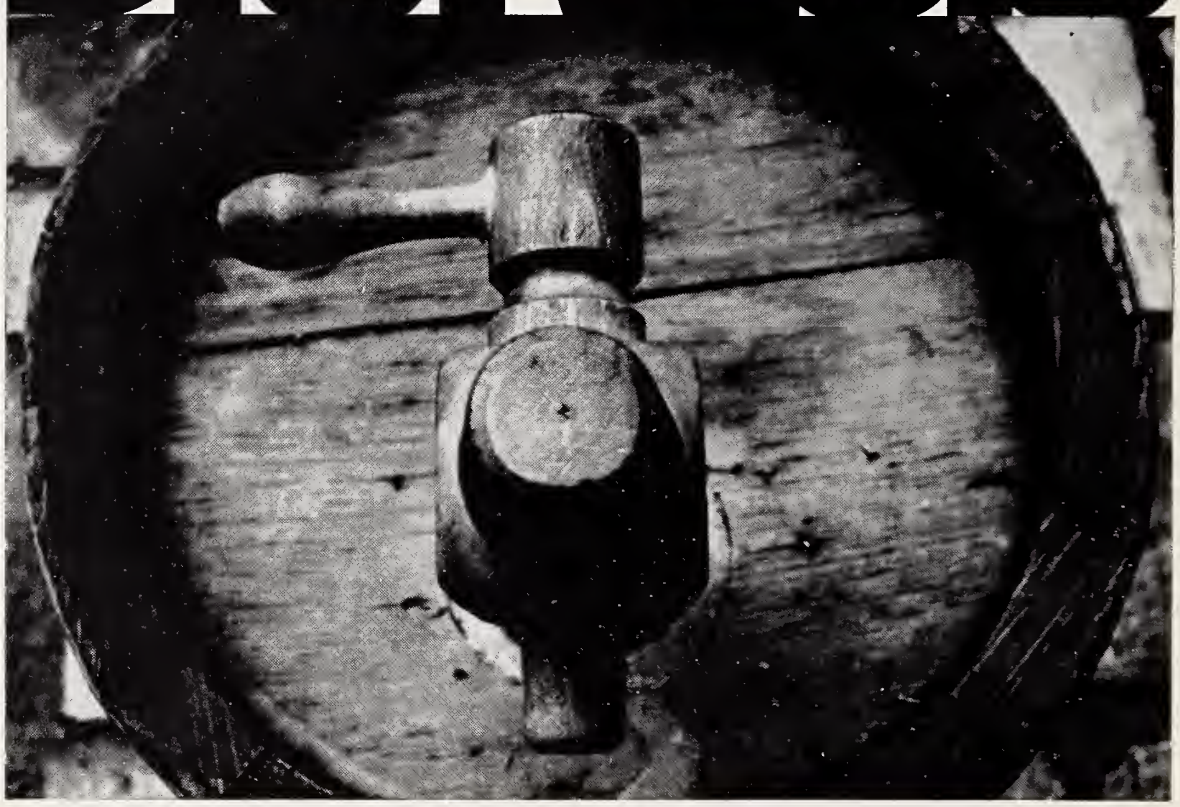
Results of aortic homografts as substitutes for prostheses have been encouraging. Procurement, sterilization, and storage are problems not encountered with prosthetic valves. Surgical mortality rates are comparable, and the incidence of embolization and superimposed infection are negligible. Long term studies, however, indicate a significant degree of insufficiency.

Rapid progress is being made in the design of prosthetic valves and in the use of homograft or heterograft valves, and continued advancement in these areas is anticipated.

Division of Thoracic Surgery
Medical College of Georgia

Prepared at the request of the Committee on Professional Education of the Georgia Heart Association.

DIURESIS



MERCUHYDRIN®
(meralluride injection)

Twenty years ago the publication of "A System for the Routine Treatment of the Failing Heart"[1] established a schedule of diuretic therapy as a primary factor in the treatment of acute congestive failure. With emphasis upon daily injections of Mercuhydrin (meralluride injection) until dry weight was obtained, Gold, et al. achieved a 40% increase in improvement, in ⅓ the time, over other methods then current. Today, most medical texts continue to recommend parenteral mercurials in acute congestive failure when prompt diuresis is indicated.

Recently Modell[2] has stated: "The mercurial diuretics are the injectable diuretics of choice since they are the most potent as well as the most dependable. Their toxicity is not an important consideration either by comparison with other potent diuretics or in relation to the seriousness of the conditions in which they provide such excellent relief."

LAKESIDE

IN BRIEF

Mercuhydrin is indicated in edema of cardiac or hepatic origin and in the nephrotic syndrome; it is contraindicated in acute nephritis and in anuric or oliguric states. *The usual adult dose is one to two cc. daily or every other day until "dry weight" is obtained.* Sensitivity is rare but small initial doses are advised to minimize potential reactions; vertigo, fever, and rash have occurred. Overdosage may produce electrolyte depletion, muscle cramps, and G. I. reactions. Supplied: 1 cc. and 2 cc. ampuls in boxes of 12, 25 and 100; 10 cc. rubber capped, multiple-dose vials (intramuscular or subcutaneous use only) in boxes of 6 and 100.

1. Gold, Harry, *et al.: A System for the Routine Treatment of the Failing Heart,* The American Journal of Medicine, Vol. III, No. 6:665-692 (Dec.) 1956.
2. Modell, Walter: *Drugs of Choice 1966-1967,* p. 97, 1966.

LAKESIDE LABORATORIES, INC., Milwaukee, Wisconsin 53201

MEDICAL RESTRAINT OF TRADE ACT

John L. Moore, Jr., *Atlanta*

SENATOR HART of Michigan has introduced a Bill in Congress to strengthen the antitrust laws by prohibiting the sale by physicians of drugs or devices prescribed by them. It also prohibits the knowing receipt of rebates, commissions, or other considerations in connection with supplying patients with such products.

The Bill would make it unlawful for a drug company to give or sell to practitioners any legal or beneficial interest in the company with the intent of inducing the practitioner to prescribe drugs of that company. It would also make it unlawful for a practitioner to acquire or own a legal or beneficial interest in any drug company with the intent of prescribing its drugs to his patients and thereby gaining financial benefits for himself. It also makes it unlawful for a drug company to pay to a practitioner, or for the practitioner to receive, any rebate or commission in connection with prescribing of the company's drugs.

The Bill provides exceptions to a practitioner furnishing a patient any drug or device in an emergency and where there is no community pharmacy or optical dispensary reasonably available in the trading area of the practitioner's place of practice. There are other important exceptions.

Self-Policing

The question of real interest is whether such federal legislation should be necessary. The actions of the Judicial Council and the House of Delegates of the American Medical Association closely parallel Senator Hart's Bill as to the dispensing of drugs and as to the ownership of stock in a drug repackaging house or in a pharmaceutical company if the physician knows that he can or does control the pharmaceutical company through his ownership of its stock.

In the past, resolutions had been adopted by the House of Delegates of the American Medical Association closely paralleling Senator Hart's Bill as to the dispensing of appliances and specifically as to the sale of eye glasses by ophthalmologists. However, these earlier actions were rescinded a few years ago and present policy of the American Medical Association is that ophthalmologists may dispense eye glasses provided there is no exploitation of patients. The exact definition of "exploitation" has not been specified. Some local societies have made some specific definitions of the term "exploitation."

Former Federal Trade Commission Chairman Earl W. Kintner, speaking for the National Association of Retail Druggists at the public hearings on Senator Hart's Bill, called the need for the legislation "acute." He pointed out that doctors have the economic, professional, and legal power to control the distribution and regulate the demand of prescription drugs, for they can only be legally dispensed under a physician's directions. Mr. Kintner argued that a doctor who is allowed to sell or profit from his own prescriptions is in a position to exercise "restraints of trade which can create artificial price levels and monopoly profits just as effectively as classic price-fixing." Mr. Kintner also argued that neither existing federal law nor negotiation nor self-regulation provided a realistic solution to this problem. He also expressed his opinion that there was no hope of remedy by state law.

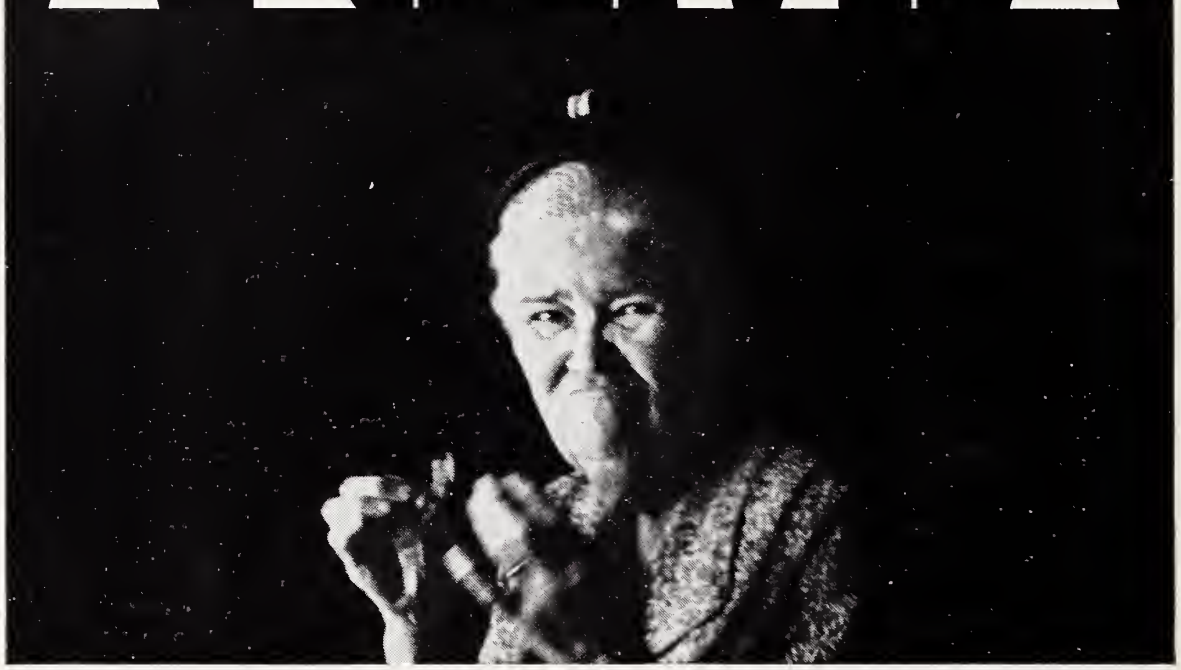
It is submitted that every physician would agree that physicians should not in any way exploit patients in any of the contexts mentioned by Senator Hart's Bill. On the other hand, it is submitted that all would also regret the necessity of federal legislation when the matter should be adequately taken care of by self-regulation through the ethical requirements of medical societies. Senator Hart's Bill probably extends the principles of the AMA position on ownership of stock in pharmaceutical houses by removing the element of control mentioned in the AMA resolutions. Otherwise, Senator Hart's Bill seems to add nothing to the AMA position on the ethics of dispensing drugs and the ownership of stock in pharmaceutical companies. On the other hand, because of the lack of a precise definition of "exploitation," it is quite likely that Senator Hart's Bill, if enacted into law, would extend considerably the present position on ethics of the American Medical Association in connection with the dispensing of eye glasses.

Suite 1220
C & S Bank Building

Prepared at the request of The Medical Association of Georgia. Mr. Moore is a member of the firm of Alston, Miller & Gaines, General Counsel to The Medical Association of Georgia.

IRON DEFICIENCY

ANEMIA



Imferon®

(iron dextran injection)

There's as much iron . . . 250 mg. . . . in a 5 cc. ampul of Imferon (iron dextran injection) as in a pint of whole blood. When iron deficient patients are intolerant of oral iron . . . or orally administered iron proves ineffective or impractical . . . or if the patient cannot be relied upon to take oral iron as prescribed, Imferon (iron dextran injection) dependably increases hemoglobin and rapidly replenishes iron reserves. Precise dosage is easily calculated.

LAKESIDE

IN BRIEF. ACTION AND USES: A single dose of Imferon (iron dextran injection) will measurably begin to raise hemoglobin and a complete course of therapy will effectively rebuild iron reserves. The drug is indicated only for specifically-diagnosed cases of iron deficiency anemia and then only when oral administration of iron is ineffective or impractical. Such iron deficiency may include: patients in the last trimester of pregnancy; patients with gastrointestinal disease or those recovering from gastrointestinal surgery; patients with chronic bleeding with continual and extensive iron losses not rapidly replenishable with oral iron; patients intolerant of blood transfusion as a source of *iron*; infants with hypochromic anemia; patients who cannot be relied upon to take oral iron.

COMPOSITION: Imferon (iron dextran injection) is a well-tolerated solution of iron dextran complex providing an equivalent of 50 mg. in each cc. The solution contains 0.9% sodium chloride and has a pH of 5.2-6.0. The 10 cc. vial contains 0.5% phenol as a preservative.

ADMINISTRATION AND DOSAGE: Dosage, based upon body weight and Gm. Hb/100 cc. of blood, ranges from 0.5 cc. in infants to 5.0 cc. in adults, daily, every other day, or weekly. Initial test doses are advisable. The total iron requirement for the individual patient is readily obtainable from the dosage chart in the package insert. Deep intramuscular injection in the upper outer quadrant of the buttock, using a Z-track technique, (with displacement of the skin laterally prior to injection), insures absorption and will help avoid staining of the skin. A 2-inch needle is recommended for the adult of average size.

SIDE EFFECTS: Local and systemic side effects are few. Staining of the skin may occur. Excessive dosage, beyond the calculated need, may cause hemosiderosis. Although allergic or anaphylactoid reactions are not common, occasional severe reactions have been observed, including three fatal reactions which may have been due to Imferon (iron dextran injection). Urticaria, arthralgia, lymphadenopathy, nausea, headache and fever have occasionally been reported.

PRECAUTIONS: If sensitivity to test doses is manifested, the drug should not be given. Imferon (iron dextran injection) must be administered by deep intramuscular injection only. Inject only in the upper outer quadrant of the buttock, not in the arm or other exposed area.

CONTRAINDICATIONS: Imferon (iron dextran injection) is contraindicated in patients sensitive to iron dextran complex. Since its use is intended for the treatment of iron deficiency anemia only it is contraindicated in other anemias.

CARCINOGENICITY POTENTIAL: Using relatively massive doses, Imferon (iron dextran injection) has been shown to produce sarcoma in rats, mice and rabbits and possibly in hamsters, but not in guinea pigs. The risk of carcinogenesis, if any in man, following recommended therapy with Imferon (iron dextran injection) appears to be extremely small.

SUPPLIED: 2 cc. ampuls, boxes of 10; 5 cc. ampuls, boxes of 4; 10 cc. multiple dose vials.

LAKESIDE LABORATORIES, INC., Milwaukee, Wisconsin 53201

COMMITTEE ON LEGISLATION

For the past several years the Legislative Committee of MAG has been perhaps the most active Committee of the entire Association. Its role as the catalyst for direct action has increased over the years proportionately with the interest in medical legislation shown by the Congress and the Georgia General Assembly.

The Committee is composed of five physicians with division of responsibility assigned for national and state legislation. This permits simultaneous consideration of bills in the Congress and in the General Assembly and has proved more satisfactory than the previous system whereby all bills, both state and national, were meshed in a single committee structure.

Interest in Medical Legislation

So far as the profession is concerned, interest in medical legislation reached a crescendo just prior to the enactment of Medicare in the summer of 1965. And although Medicare marked a milestone in the history of medical legislation, it was by no means an end in itself. More correctly, it was the beginning of a procession of efforts that will keep the medical profession in a state of legislative turmoil for years to come.

At the time this article is written, the House Ways and Means Committee is holding hearings on H.R. 5710, the "Social Security Amendments of 1967." These amendments are, in fact, proposed changes in Medicare and particularly the Title XIX portion. Your Legislative Committee is currently involved in efforts to persuade the Ways and Means Committee and the Georgia Delegation not to expand Medicare to include the disabled below the age of 65. We are urging instead that our underage 65 disabled citizens who actually need help be cared for under the Title XIX program. We are also asking the Committee to amend Title XIX to permit payment to be made for a physician's services on the basis of an itemized bill rather than on the basis of a receipted bill, as is now the case.

Your Legislative Committee is also seeking the rejection of the so-called "Medical Restraint of Trade" bill, S. 260, otherwise known as the Hart Bill (so named for its chief sponsor, Senator Philip Hart of Michigan).

S. 260 would, among other things, prohibit an ophthalmologist from dispensing eye glasses on the difficult-to-follow assumption that elimination of a source of supply results in a freer market for the patient. The Hart Bill is at present stalled in the full Senate Judiciary Committee and the MAG Legislative Committee will attempt to keep it there.

While the foregoing by no means represents the total activity of that segment of the Legislative Committee concerned with national legislation, it is the Committee's most pressing matter at the present time.

Congressional Luncheon

An annual activity of the Committee worthy of mention is the Congressional Luncheon which the Committee gives its members of Georgia's House and Senate delegations in the spring. The 1967 Luncheon was the ninth such affair. One physician from each Congressional District attends these luncheons to act as personal host to his Member of Congress. The meetings are held in the Speaker's Dining Room at the Capitol and attendance on the part of our Senators and Congressman is usually 100 per cent.

The April, 1967 issue of *JMAG* carried an article giving a brief description of the ultimate disposition of many of the more important bills of concern to medicine that were considered by the Georgia General Assembly this year. It would be repetitious to enumerate this list of bills again here. It is certainly obvious to all, however, that the five members of the Legislative Committee have enjoyed successes in the past only when they have had the help of physicians across the State who responded to calls for direct legislative contacts and joined in letter-writing campaigns to defend or promote the interest of the profession. If this has been true in the past, then it will surely become a more meaningful legislative weapon in the future. For, unfortunately, the job of your Legislative Committee is all but certain to become bigger and more demanding as many in society become more heavily organized and accustomed to looking to Congress and the General Assembly for solutions to all its problems—real and imagined.

J. Frank Walker, M.D., Chairman (National)
Harrison L. Rogers, Jr., M.D., Chairman (State)
MAG Committee on Legislation

DIARRHEA

CANTIL®
(mepenzolate bromide)

LAKESIDE

Diarrhea, one of the most vexing symptoms of common G. I. disorders can often be curbed with Cantil (mepenzolate bromide), bringing welcome relief to the harassed patient. Relatively specific for the hyperactive colon, it helps reduce diarrhea, pain and spasm with minimal effect on other viscera. Cantil (mepenzolate bromide) is indicated whenever these symptoms are associated with irritable colon, gastroenteritis, diverticulitis, and mild to moderate ulcerative colitis.

It is an anticholinergic drug without narcotic properties. Side effects are usually mild.

IN BRIEF: One or two tablets three times a day and one or two at bedtime usually provide prompt relief. Cantil with Phenobarbital may be prescribed if sedation is required.

Dryness of the mouth, blurring of vision, constipation, nausea, vomiting, bloating and dizziness may occur but are usually mild and transitory. Urinary retention is rare. Caution should be observed in prostatic hypertrophy — withhold in glaucoma. Contraindicated in patients sensitive to phenobarbital and/or Cantil (mepenzolate bromide); in toxic megacolon, obstruction of G. I. or G. U. tract.

SUPPLIED: CANTIL (mepenzolate bromide) — 25 mg. per scored tablet. Bottles of 100 and 250. CANTIL with PHENOBARBITAL — containing in each scored tablet 16 mg. phenobarbital (warning: may be habit forming) and 25 mg. mepenzolate bromide. Bottles of 100 and 250.

LAKESIDE LABORATORIES, INC., Milwaukee, Wisconsin 53201

DEATHS

George Mahlon Hutto, Sr., 58, of Columbus, died April 12, 1967, after a short illness.

Dr. Hutto, a consulting radiologist at Meriwether Memorial Hospital in Warm Springs, became ill on a visit to Warm Springs.

Dr. Hutto was associated in the practice of radiology with Drs. Jenkins, Stewart and Paul. He has been the radiologist at St. Francis since the hospital started, and also was the consulting radiologist at Martin Army Hospital, Fort Benning.

A native of Kokomo, Indiana, he had lived in Columbus 19 years and was a member of Trinity Episcopal Church.

He was a graduate of George Washington University, where he received an A.B. degree before graduating from the George Washington School of Medicine in 1936.

During World War II, Dr. Hutto served in the U. S. Navy Medical Corps, in the Pacific Theater. He left the service with the rank of commander of the Medical Corps.

Dr. Hutto was a member of the Columbian Masonic Lodge and a member of the Columbus Kiwanis Club. He also was a past president of the Muscogee Medical Society and the Georgia Radiological Society. He was a member of the Big Eddy Club and the Green Island Country Club, and was President of the Candun Club of Columbus.

Survivors include his widow, Mrs. Adelaide Kirt Harrison Hutto, Columbus; a daughter, Mrs. William Hitch, Atlanta; two sons, George Mahlon Hutto, Jr., Athens, and Randolph Lee Massey Hutto, a student at Washington and Lee University; a brother, Dr. William Harry Hutto, Kokomo; and two grandchildren, Jean Chambers Hutto and George Mahlon Hutto, III, both of Athens; and four nephews.

SOCIETIES

The **First District Medical Society** met March 29, 1967, in Statesboro. The program of the meeting included talks on "Snakebite Treatment and Complications" by Dr. George Evans of Savannah; "Tumors of the Mouth" by Dr. Robert L. Brown of Emory University; "Myocardial Infarction: How to Diagnose It" by Dr. Peter C. Gazes of the Medical College of South Carolina in Charleston, and "Tumors of the Nasopharynx and Larynx" by Dr. Robert L. Brown.

At the annual dinner, Mr. Porter Carswell, Sr., of Waynesboro gave a non-political speech, followed by the installation of Dr. Emory Brooklet as the new President of the society.

Dr. Harvey A. Zarem spoke on the concepts of plastic surgery at a meeting of the **Georgia Medical Society** held April 11, 1967, at Savannah. A native of Savannah, Dr. Zarem is Professor of Surgery and Head of the Division of Plastic Surgery of the University of Chicago Hospitals and Clinics.

PERSONALS

Emory University School of Medicine, Atlanta, has announced the promotion of 17 faculty members.

The faculty members with their new titles are: **John C. Ammons,** assistant professor of medicine; **George M. Callaway, Jr.,** associate in medicine; **Wallace G. Campbell,** associate professor of pathology; **James H. Christy,** assistant professor of medicine; **W. Edmund Farrar, Jr.,** assistant professor of preventive medicine and assistant professor of medicine.

Major F. Fowler, clinical assistant professor emeritus of surgery (urology); **E. Ralph Heinz,** associate professor of radiology; **Robert F. Kibler,** professor of medicine (neurology); **Alexander S. McKinney,** associate in medicine; Joseph Mendeloff, professor of pathology; **Andre J. Nahmias,** associate professor of pediatrics and associate professor of preventive medicine.

Zuher Naib, professor of pathology and associate professor of gynecology-obstetrics; **Harold S. Ramos,** associate professor of medicine; **Sterling J. Ritchey,** associate professor of surgery (orthopedic); **Randi V. Rosvoll,** associate professor of pathology; **William R. Vogler, Jr.,** assistant professor of medicine; and **Lyndon Wade,** assistant professor of psychiatry (social work).

First District

Samuel F. Rosen, Savannah dermatologist, has been elected President of the Southeastern Dermatological Association at a recent meeting of the association at the Medical College of South Carolina in Charleston. The association includes dermatologists from 11 states in the Southeast. Dr. Rosen is a Past President of the Georgia Medical Society and has practiced in Savannah for more than 30 years.

Second District

David M. Wolfe, Albany, addressed the March 22, 1967, meeting of the Sylvester Kiwanis Club. Dr. Wolfe's topic described a plan by the U. S. Public Health Department for destroying the Aedes Aegypti mosquito, the one which carries yellow fever.

Third District

Columbus physician, **J. C. Serrato,** recently spoke to the Quota Club of Columbus on the current and future outlook of the Latin American countries. Dr. Serrato cited the need for leadership to continue the varied development of the diversified Latin American nation.

Fourth District

John D. Blackburn and **R. L. Carter,** Thomaston, were recently presented plaques by the Woman's Aux-

iliary of the Upson County Medical Society for 50 years each of medical practice.

Fifth District

John Turner, Atlanta, was recently installed as President of the American Society of Abdominal Surgeons at a meeting held in Washington, D. C.

The medical staff of Scottish Rite Hospital, Atlanta, has recently elected **George P. Sessions,** Decatur, as its President for 1967. Dr. Sessions is currently Chief of Anesthesiology at DeKalb General Hospital and Scottish Rite Hospital. Also elected were **Perry M. White, Jr.,** Atlanta, Vice-President, and **John M. Roberts,** Atlanta, Secretary-Treasurer. **Wood W. Lovell,** Atlanta, will continue to serve as full time Surgeon-in-Chief at Scottish Rite.

Professor of Urological Surgery, Emory University School of Medicine, Atlanta, **Charles Reiser,** was elected as President of the Southeastern Urological Association at the group's 31st annual meeting held in April at Hollywood, Florida.

On April 7 **Sidney Olansky** presented a paper entitled, "Infectious Diseases Involving the Skin and Oral Mucosa," at a Symposium on Mucocutaneous Diseases cosponsored by The Committee on Cutaneous Health and Cosmetics of the American Medical Association and the American Academy of Oral Pathology in Miami.

He also attended the Southern Dermatological meeting, April 8 and 9 in Charleston, South Carolina.

With the new interest in soccer in the United States, a Roswell physician, **Alexander Szeczey,** formerly of Hungary, has volunteered to coach amateur soccer teams for both Roswell and Alpharetta if the communities are willing to take Dr. Szeczey up on his offer. A former soccer player in both high school and his state university, he also rides horses, golfs, skis and plays tennis.

Seventh District

C. J. Wyatt, Rome, has been named as the Floyd County employees' representative on the Floyd Merit Board. Dr. Wyatt will serve for three years.

George T. Mims, Marietta, has been named as Professional Employees Chairman for the Cobb County Unit of the American Cancer Society for its 1967 educational and fund-raising crusade.

John Dickinson, Rome physician, has been appointed as Director of the Floyd County Tumor Clinic to serve for the next two years. The appointment was made in April by the Floyd County Medical Society, sponsors of the clinic, which was organized in 1948.

Eighth District

Louis A. Valente, Brunswick, attended a seminar on endocrinology in April at the Medical College of Georgia, Augusta. **Robert B. Greenblatt** of the Medical College of Georgia faculty was principal lecturer.

Ninth District

C. M. Berry, Ellijay, has been named Chairman of the Northwest Georgia Regional Health Advisory Council at a meeting of the council held at Dalton in April. The purpose of the council is that of long-range comprehensive health planning for the region, reflecting the health needs identified by County Health Advisory Councils.

DISTRIBUTION OF REPRINTS OF ARTICLES

Question has arisen as to professional ethics concerning the mailing of reprints of a scientific presentation and/or article by the author to other members of the profession. To clarify these questions, the following quotation from the American Medical Association's "Judicial Council Opinions and Reports," on medical ethics is given below:

"One normally would not take it upon himself to mail reprints indiscriminately without sufficient reason. What constitutes a sufficient reason is impossible to define categorically. Certainly it would not be ethical for a physician to mail reprints if his intent was to solicit patients directly or indirectly or to attempt to bring undue attention to himself. The practice, therefore, cannot be recommended. This is not to say that the author of a medical article may not honor requests for copies of his article. *(Judicial Council, 1957.)*"

"THE MEDICAL UNITS 'PLANNING GUIDE'" AND "THE BUSINESS SIDE OF MEDICAL PRACTICE" AVAILABLE TO GEORGIA DOCTORS

For the fourth consecutive year, the Medical Association of Georgia is offering to the doctors of Georgia the American Medical Association-Sears, Roebuck Foundation, Inc. booklets entitled, "The Business Side of Medical Practice," and "The Medical Units 'Planning Guide.'" The material is free of charge and either or both may be obtained by writing to the *MAG Headquarters Office, 938 Peachtree St., N.E., Atlanta, Ga. 30309.*

Each booklet, constructed of heavy vellum stock, measures approximately 12″ × 9″ and contains charts, graphs, illustrations, floor plans, etc. Both are made for easy handling and make a nice addition to a doctor's office library.

JOURNAL OF THE MEDICAL ASSOCIATION of Georgia

JULY / 1967

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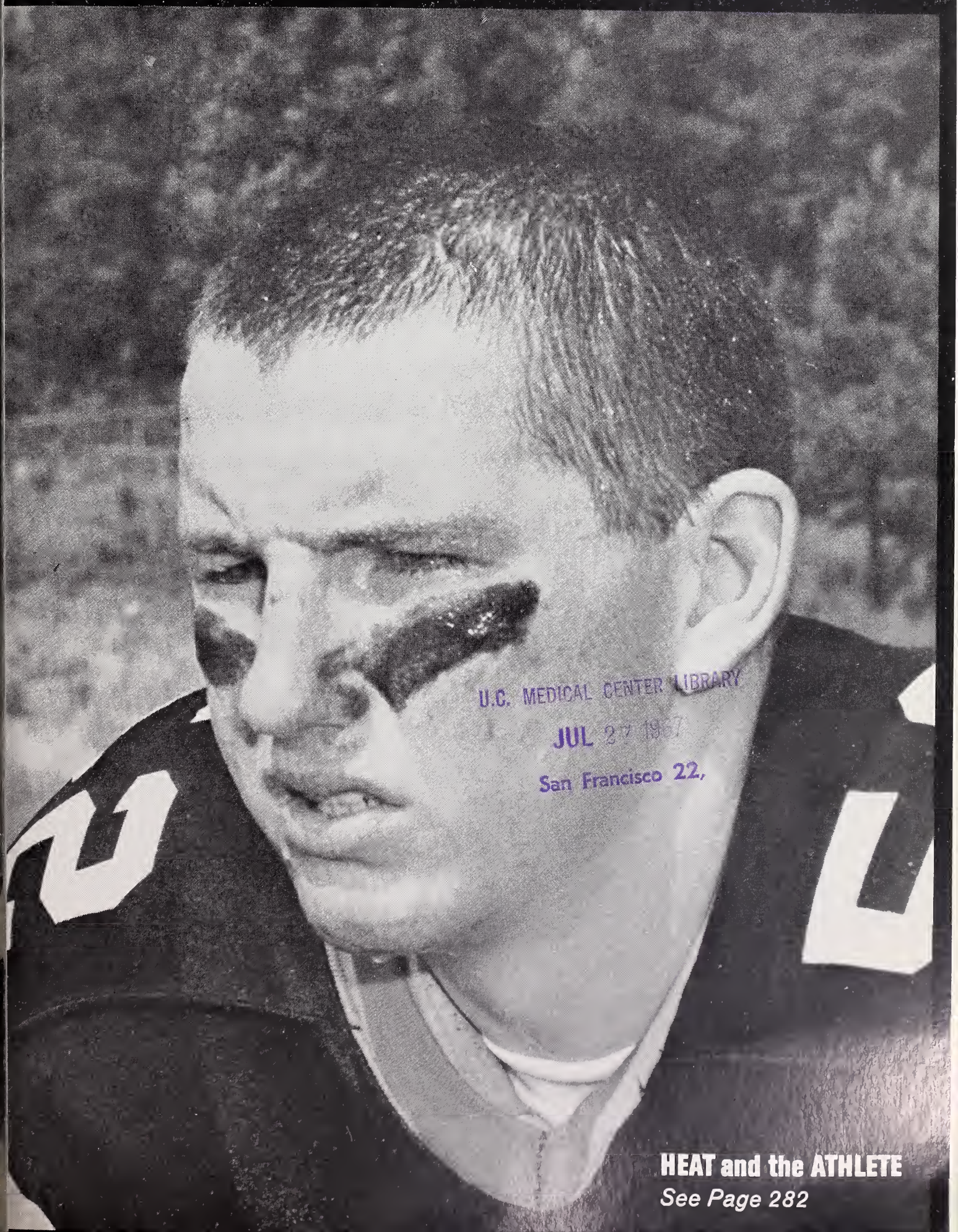

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HEAT and the ATHLETE

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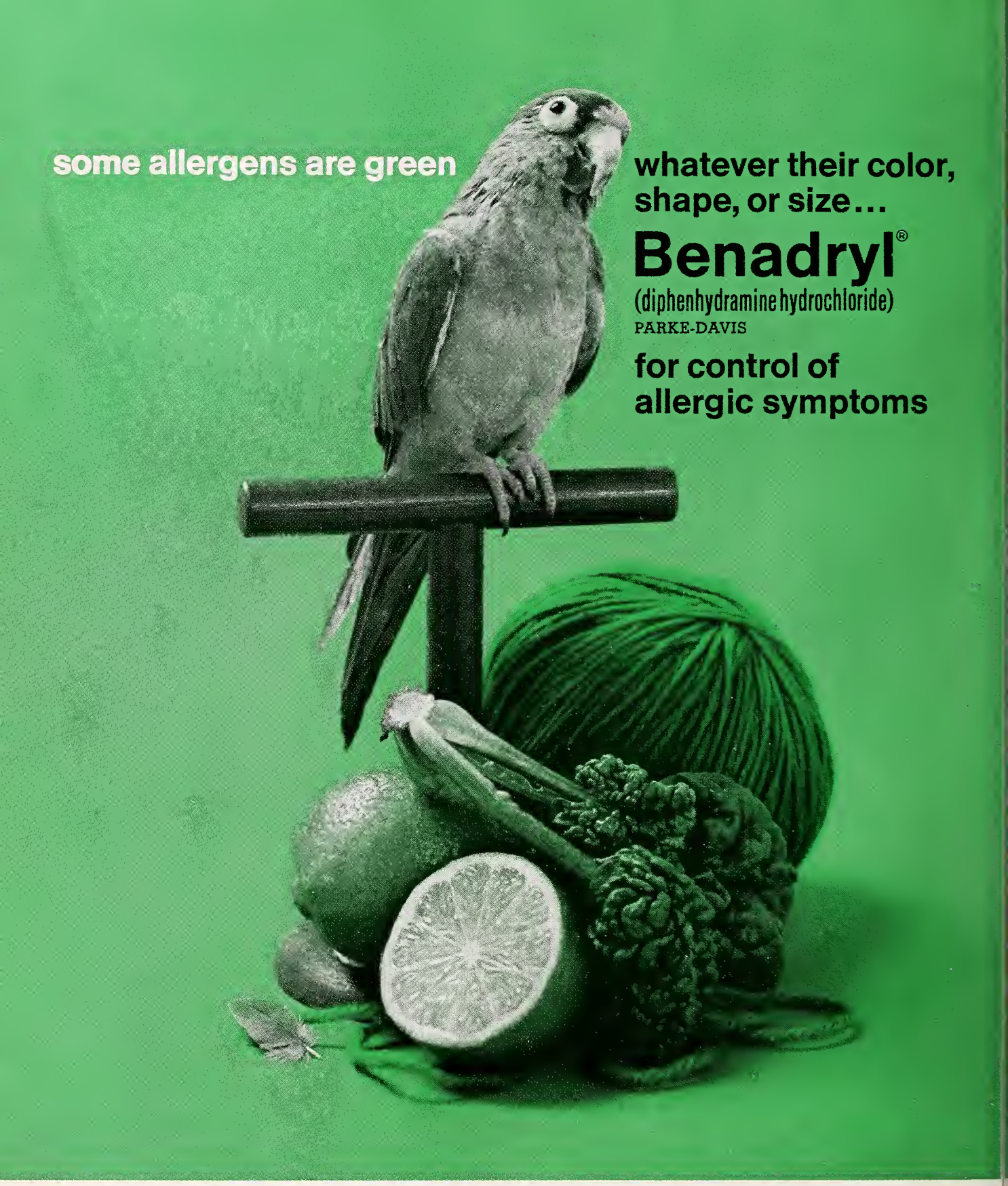

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JOURNAL OF THE MEDICAL ASSOCIATION Georgia

Current Clinical Concepts

REFRACTORY EDEMA

James B. Hudson, M.D., *Augusta*

ALTHOUGH A BETTER UNDERSTANDING of the pathophysiology of sodium and water balance and the development of new and potent diuretic drugs have greatly facilitated the management of patients with edema, there remain a significant number who, either initially or during the course of treatment, exhibit relative resistance to therapy and pose a difficult problem for the attending physician. The mechanisms through which such refractoriness arises are often complex and interrelated, but chances for successful management may be significantly improved by their identification.

Abnormal Retention of Salt and Water

While a variety of clinical disorders may initiate the sequence of events that leads to edema formation, the full development and maintenance of this syndrome depend ultimately on an abnormal retention of salt and water by the kidney. Throughout much of the nephron, active sodium transport from tubular fluid to blood is followed by passive reabsorption of water and other solutes along the altered osmotic and chemical gradients. The completeness with which filtered sodium is reabsorbed in this way determines the amount lost in the urine and this, relative to the amount ingested, defines sodium balance and, in the presence of normal osmolality regulation, the volume of extracellular fluid.

Several factors appear to be involved in the regulation of this aspect of renal control over extracellular fluid volume. In the proximal tubule, where there is a relatively large capacity for sodium reabsorption against low concentration gradients and where 80-85% of the glomerular filtrate is removed, variations in glomerular filtration rate (and thus, in the quantity of filtered sodium) are accompanied by parallel changes in sodium reabsorption. However, while concordant, the changes in proximal reabsorption are not fully compensatory, and greater or smaller amounts of sodium may be delivered to the distal tubule where, although sodium transport can occur against large concentration gradients, the quantitative capacity for sodium reabsorption is thought to be limited by comparison to the more proximal segments. With the increased sodium delivery that follows an increase in filtration rate, this capacity may be exceeded and sodium lost in the urine; with a fall in filtration rate the amount of sodium delivered to the distal tubule may fall within its reabsorptive capacity and be retained.[1, 2] Thus, renal hemodynamic adjustments responsive to changes in effective circulating volume may cause changes in renal blood flow and glomerular filtration rate that can alter sodium excretion and probably have a role in gross regulation of extracellular volume, particularly in situations in which rapid volume changes occur.

A Finer Control

A finer control over sodium balance than that accomplished by the above hemodynamic mechanisms results from the direct effect of the adrenal cortical hormone, aldosterone, on tubular sodium reabsorption. According to the current hypothesis, a reduction in extracellular volume (or some function thereof such as pulse pressure or flow, etc.) causes an augmented secretion of renin by the kidney in a response probably mediated by the juxtaglomerular apparatus.[3, 4] Renin initiates an accelerated conversion of angiotensin precursor to angiotensin II, a potent stimulator of aldosterone release by the adrenal cortex. Aldosterone appears to exert its sodium retaining effect chiefly on the distal portion of the nephron[5] and probably by stimulating local synthesis of enzymes concerned with active transport of the sodium ion.[6]

Recently a third factor of importance in renal regulation of sodium balance has been described.[7, 8] Although as yet incompetely defined, it too appears

to be responsive to changes in extracellular volume; saline infusion, for example, may be followed by a reduction in tubular reabsorption of sodium, independent of filtration rate and aldosterone secretion.

Under ordinary circumstances these systems, and perhaps others, respond in a coordinated way to preserve sodium balance and normal extracellular fluid volume. The integration of these responses is of such a nature that even when one is excessively stimulated, compensatory changes appear to occur in the others so that sodium balance is reestablished. Thus, a primary reduction in glomerular filtration rate and consequently decreased sodium excretion may, in part, be offset by a reduction in tubular reabsorption of sodium as volume expansion occurs;[9] in primary hyperaldosteronism, salt retention due to excessive hormone secretion may be balanced by a rising glomerular filtration rate and an increase in filtered sodium as volume expansion occurs.[10] In conditions marked by edema formation there may be, through a decrease in plasma volume, a reduction in cardiac output or a redistribution of systemic blood flow, a decrease in effective extracellular or circulating volume and an increase in sodium reabsorption even though total extracellular volume may be normal or expanded. In addition, the distribution of fluid is such that compensatory changes are compromised and the combination of these factors may result in the progressive accumulation of edema fluid.

An Important Consideration

An important consideration in the treatment of patients with edema is, of course, the inhibition of abnormal salt retention with diuretic drugs. The level of success experienced at this point of attack will, in part, depend on the degree to which the various factors alluded to above can be influenced by therapy. A less than optimum response might be expected under a variety of circumstances. In the patient with congestive heart failure, persistence of significant hemodynamic abnormalities due to under- or over-digitalization, excessive exercise, active myocardial disease, obstructive cardiopathy, concomitant infection and metabolic or endocrine factors, etc., may provide a persisting stimulus to sodium reabsorption of sufficient proportions to interfere with ordinarily effective diuretic regimens. Similarly, in nephrosis, edema which is refractory to treatment at a time when severe hypoalbuminemia exists may be more easily controlled when proteinuria has been reduced and plasma albumin concentrations are at more nearly normal levels. Even when the underlying disease process has been corrected as completely as possible, a satisfactory diuretic response may depend on the use of a drug with potency appropriate to the strength of the stimulus to sodium retention, on the correction of factors which interfere with the action of what would otherwise be an effective diuretic agent, or on the selection of drug combinations which have additive or complementary effects on sodium transport by the kidney.

The oldest and still among the most useful diuretic agents are the organomercurials. These are mercurated allyl derivatives, the diuretic potency of which may be related to the release of mercuric ions and consequent inhibition of enzymes concerned in sodium transport. The carbon-mercury bond is subject to rupture in acid solution, and a relationship between diuretic activity and *in vitro* acid lability has been demonstrated for a number of compounds of this class.[11] Although this mode of action would explain the well-known potentiation of organic mercurials by acidosis, some observations are difficult to reconcile with this hypothesis and alternative schemes have been proposed.[12] Whether or not it represents an effect of pH on the availability of mercuric ion, metabolic alkalosis appears clinically to interfere with the diuretic potency of the mercurials and may be a cause of refractory edema when these agents are used. Responsiveness can often be restored, under these circumstances, by the administration, for three or four days prior to the injection of the mercurial, of acidifying salts such as ammonium chloride (or the hydrochlorides of certain basic amino acids) or of the carbonic anhydrase inhibitor, acetazolamide, which reduces plasma bicarbonate concentration by suppressing renal tubular hydrogen ion generation and promoting urinary bicarbonate loss. Simultaneous administration of ammonium chloride and an organic mercurial is of little use, and acetazolamide given concurrently with the mercurials may actually depress their effectiveness. Patients treated with acetazolamide alone may, if the drug is used continuously and at large enough doses, provide another example of refractoriness to diuretic therapy, since the development of a metabolic acidosis may reduce the quantity of filtered bicarbonate to the point where it (and accompanying sodium) can be reabsorbed at the residual level of carbonic anhydrase activity. This situation can usually be avoided in those patients for whom this drug is otherwise satisfactory by using single daily doses of 0.25-0.75 gm. or by following an interrupted schedule if larger doses are employed.

From Known Causes

The metabolic alkalosis that can compromise mercurial effectiveness may arise from known causes other than diuretic therapy or may develop during, and be related to, prolonged treatment with these agents. Mercurials appear to have a primary effect on

sodium reabsorption, probably by the proximal tubule[13, 14] and likely by other segments as well[15, 16] but, in common with most effective diuretics, they cause a proportionally larger urinary excretion of chloride. Although other factors may be involved,[17] this is thought to be related to increased delivery of sodium to distal tubular segments where a portion is removed from the lumen, not with chloride, but in exchange for tubular cell potassium and hydrogen ion. Particularly if this exchange is augmented by increased aldosterone production, urinary excretion of chloride and hydrogen may be sufficient to produce the hypochloremic alkalosis. Although inhibition of potassium secretion is a specific effect of the organomercurials, the participation of potassium in an accelerated distal tubular exchange may actually lead to potassium depletion during extended treatment with these agents. While depletion of body potassium stores is not known to reduce directly the effectiveness of mercurials, the loss of intracellular potassium may favor a greater relative hydrogen-sodium exchange and thus potentiate the development of a metabolic alkalosis and mercurial resistance. In addition, the progression of a significant potassium depletion and hypokalemia may, for practical purposes, limit the use of a drug even if the diuretic response is still satisfactory. Thus, the maintenance of normal potassium balance during treatment may help to insure continued usefulness of a diuretic agent.

A hypokalemic alkalosis serious enough to compromise diuretic therapy is even more likely to follow treatment with the thiazide diuretics than with organic mercurials. Although several of these derivatives of the sulfonamides are currently in use, little is known of their precise site or mechanism of action, and it is possible that these may vary with the quantity of drug administered.[18] Nevertheless, it is considered that potassium depletion develops during treatment with these drugs for much the same reasons as with the mercurials (i.e., increased sodium delivery to the potassium exchange site), but that it becomes a clinical problem more frequently during thiazide therapy because these agents are commonly given in a more or less continuous regimen with little opportunity for replenishment of potassium stores between doses, and because the development of hypokalemic alkalosis does not interfere with their continued diuretic effectiveness.[19] With regard to either agent, in the prevention or treatment of potassium depletion with supplemental oral potassium salts, it is important to bear in mind the possible complications from enteric coated potassium preparations[20] and the necessity of accompanying chloride for the successful correction of an associated metabolic alkalosis.[21]

While the development of acid-base and electrolyte problems during treatment with the thiazide diuretics may be limiting, ineffectiveness of these compounds in the control of edema, as with most diuretics, is more frequently a reflection of the potency of the drug relative to the severity of the disease process and the strength of the stimulus for salt retention in an individual patient. Members of the thiazide group, for example, have roughly half the maximum effect of the organomercurials, and for the carbonic anhydrase inhibitors and aldosterone antagonists, the peak effect on sodium reabsorption is even smaller. Thus, a patient with edema refractory to one drug may respond to another of greater potency or to a combination of drugs with additive effects.

Although the diuresis which mercurial agents produce is likely to be marked by the formation of a relatively dilute urine, the response to members of the thiazide group commonly includes the elaboration of a more concentrated urine. This discrepancy has been interpreted as evidence for an effect by the thiazides on sodium transport at a renal tubular diluting site which is not shared by the mercurials,[22] and in clinical use the combination of these two classes of diuretics may be in part additive, rendering responsive some patients refractory to treatment with either agent alone.[23]

Example of Disparate Sites

Another example of the exploitation of disparate sites of drug action is the use of aldosterone antagonists in combination with other diuretics to improve the response to therapy in patients with refractory edema. The spirolactones are in themselves rather weakly diuretic and of limited usefulness as single agents except in certain cases of nephrosis, for example, where hyperaldosteronism is apt to be quite prominent, as opposed to many patients with congestive heart failure in whom this finding is inconstant and hemodynamic factors are thought to play the larger role. Although, like the thiazides, aldosterone antagonists promote the formation of more concentrated urine, they also interfere with the reabsorption of sodium exchanged for potassium. In practice a significantly increased natriuresis may accompany the concurrent use of these drugs, and the potassium retaining effect of the spirolactone may give the added advantage of preventing the excessive potassium loss that can complicate thiazide administration. The aldosterone antagonists enjoy a similar potentiating effect when used in conjunction with the organic mercurials or the newer aryloxyacetic and anthranilic acid derivatives, but in all of these cases care must be taken that excessive potassium retention and a dangerous hyperkalemia do not occur.

While a relative resistance to diuretic therapy may

characterize an individual patient almost from the start of his treatment regimen, it is, perhaps, more common for such a situation to develop after an initial period of responsiveness. Apart from those cases in which drug effectiveness has been limited by the appearance of electrolyte disturbances, this change is most often the result of an increased stimulus to salt retention. Occasionally this may be the outcome of progression of the basic disease or its complication by, for example, infection or digitalis intoxication, but it may be related to the diuretic therapy itself and a critical reduction of effective extra-cellular volume; diminished filtration rate and/or increased aldosterone production leading to an augmented sodium retention.[24] In either case it is in this sort of situation that a more potent diuretic or a suitable drug combination, such as the addition of a spirolactone, may be of value.

Two New Drugs

Two new drugs with maximum effect at least as great as that of the mercurials hold considerable promise for the treatment of refractory edema.[25, 26] Ethacrynic acid, a ketone derivative of aryloxyacetic acid, and the anthranilic acid derivative, furosemide, although chemically quite distinct, have some effects that are qualitatively similar to those shown by members of the thiazide group. Like the latter compounds, the diuresis which they produce is marked by a disproportionate loss of chloride and potassium and by interference with urinary dilution. Unlike the thiazides, they also inhibit urinary concentration, which has suggested an effect on sodium transport in the loop of Henle and/or at combined proximal and distal tubular sites.[27, 28, 29] As with the thiazides, potassium depletion and alkalosis may be produced with ethacrynic acid and furosemide (although this does not interfere with their diuretic effectiveness) and similar effects on uric acid excretion have been observed.

Because of the electrolyte disturbances which can occur and because, on occasion, they may result in a massive diuresis and dangerous volume depletion, patients receiving these newer agents require close supervision and are best managed on an intermittent treatment schedule. The problem of potassium depletion alkalosis may be less prominent, and diuretic effectiveness better maintained, when these drugs are used in conjunction with an aldosterone antagonist, although, as with thiazide-spirolactone combination therapy, care must be taken to avoid excessive potassium retention and hyperkalemia. The prompt onset of action of ethacrynic acid and furosemide and their relatively short duration of effect may make them of unique value in the treatment of patients with severe congestive heart failure and pulmonary edema, and it is in these cases, and in those with edema refractory to other agents, that these drugs probably have their greatest usefulness.

Hyponatremia, although probably not a specific antagonist of diuretic drugs, is often seen in patients with resistant edema and may develop during diuretic therapy, occasionally limiting this approach. In some cases the situation is the result of over-vigorous use of diuretic agents causing a contraction of total extracellular volume beyond normal. When this occurs, increased antidiuretic hormone secretion (in response to a volume stimulus, as opposed to the usual stimulus—hyperosmolality)[30] and a reduction in glomerular filtration rate[31] probably combine to limit water excretion and cause the dilution of body fluids. Such patients are free of edema, and normal regulation of water balance can be restored by salt administration. More commonly, hyponatremia is seen in patients with advanced cardiac disease or nephrosis and obvious edema, in whom similar responses are thought to follow a critical decrease in *effective* extracellular or circulating volume brought about by progression of their disease or an initially successful diuretic response. Such patients represent difficult management problems and improvement may depend upon amelioration of the underlying disease process. Salt administration in this setting is likely to contribute to the edema and is not often helpful unless, for the patient with frank water intoxication, it is given in hypertonic solution and combined with fluid restriction. Occasionally peritoneal or hemodialysis will allow correction of the electrolyte disturbance and provide for gradual removal of edema fluid while measures aimed more directly at the basic disorder are undertaken. Fluid restriction and interruption of diuretic treatment may be sufficient in milder cases and in some instances potassium depletion may be a factor.[32] In the earliest stages the use of mercurial agents, which increase free water clearance, may allow diuretic therapy to be continued without the further progression of hyponatremia.

While patients with extracellular volume expansion and azotemia due to an acute glomerulitis or acute tubular necrosis are not candidates for diuretic therapy, such a combination in the patient with chronic renal disease and congestive heart failure, or with an advanced nephrotic syndrome, may call for consideration of the use of a diuretic agent. In the experimental animal with unilateral renal disease, remaining nephrons in the affected kidney appear to respond in an appropriate manner to the administration of diuretics,[33] and in patients with bilateral renal disease and depressed function, some diuretic responsiveness has been shown with rates of glomerular filtration as low as 20-30 ml. per min.[34] With

more severe renal disease than this, however, the nephron population is so small that, even if adaptive changes have not altered its responsiveness to the drug, the resulting sodium loss is likely not to be of clinical significance.[35] Occasional patients with such an apparent functional loss will respond to one of the newer agents, ethacrynic acid or furosemide,[25] but such agents, as well as those with more direct nephrotoxicity (e.g. mercurials), must be used with caution in such a situation. Even with only moderate renal functional impairment, drug combinations, like that of an organic mercurial and thiazide—effective in other circumstances, may not be additive,[34] and care must be exercised that an increased risk of toxicity is not accepted without clear therapeutic advantage. For the patient with advanced renal disease and life-threatening fluid retention, peritoneal or hemodialysis may permit an acute reduction in extracellular volume and allow time for the institution of more specific therapy aimed, for example, at the control of heart failure or the treatment of infection.

A better understanding of the various mechanisms of abnormal sodium retention, and the development of techniques for recognition of the precise nature and locus of the problem in an individual patient, may ultimately allow the selection of a diuretic with quite specific and predictable effects. For the present, although the treatment of refractory edema may be largely empiric, an understanding of the pathophysiology involved may greatly facilitate both the selection of a drug or combination of drugs that will most effectively inhibit sodium reabsorption, and the identification of incompletely treated and remediable stimuli to this renal activity.

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Department of Medicine
Medical College of Georgia

HEAT AND THE ATHLETE

Fred L. Allman, Jr., M.D., *Atlanta*

■ **Most adverse reactions to environmental heat and humidity occur during the first few days of training.**

NEXT MONTH over one million young men and boys will begin football practice for the 1967 season. In many sections of the country the temperature will exceed 90° and the humidity will go above 70%. Such an environment is likely to produce severe heat stress.

During the first ten days of the 1965 football season at least six and possibly ten young men died of heat stroke. There were many unreported cases of "near fatal" heat stroke and the number of cases of heat exhaustion probably exceeded a thousand. Subclinical cases of heat stress, which were of less serious consequence than the heat exhaustion or heat stroke cases, were responsible for an appreciable loss of efficiency in tens of thousands of athletes throughout the nation.

Could these deaths, the near deaths, and the altered performance of these young men have been prevented? The answer is an unequivocal "yes."

Dr. William R. Buttram, Jr., after an extensive study of heat stress, has stated, "No one can study the deaths from heat stress as correlated with the climatic conditions for the time and place and type of activity involved without the firm belief that 98% of all such reactions are avoidable. A heat stroke is not a chance proposition like being struck by lightning. It is a predictable phenomenon."

In order to prevent these unnecessary deaths it is important that physicans, coaches and trainers have a basic understanding of the heat stress problem.

Result of an Imbalance

Heat problems arise as the result of an imbalance between the heat production associated with a man's activity, and the heat loss allowed in a given environment by the protective clothing and equipment he wears. The heat generated in the body is from muscle activity and from normal reactions in the internal organs (metabolism). If there were no methods of dissipating the heat, a man during light activity would show a rise in body temperature of 9° F per hour and would die in about 90 minutes. When environmental temperature is below skin temperature, 70% of the heat is lost by radiation, conduction, and convection, and nearly 30% by evaporation from the respiratory tract and skin. When environmental temperature rises above skin temperature, we not only lose over 70% of our heat dissipating ability, but actually begin to take on heat from the environment and have to depend altogether on evaporative cooling. Thus, the body's ability to sweat and the air's ability to take on more moisture due to a low humidity becomes the life or death factor.

Heat Stroke is thermoregulatory failure under heat stress. It is an acute medical emergency with rectal temperatures of 105° or higher, central nervous system involvement and absence of sweating.

Heat Exhaustion is associated with prolonged sweating and is caused by inadequate replacement of salt and/or fluid. Symptoms are progressive daily weight loss, decrease in urine output, fainting, headache and fatigue.

Prevention of Heat Injury

A. *Provide Complete Medical History and Physical Examination*:

Special emphasis must be given to any history of previous heat illness or fainting when exposed to heat. Inquiry should be made concerning any sweating or peripheral vascular defects.

Certain athletes are very susceptible to heat injury. These include, in addition to those who are unaccustomed to work in the heat, overweight individuals (especially large interior lineman); eager athletes who are anxious to impress the coach favorably and who give 100% at all times; ill athletes, especially when the illness is associated with fever, vomiting and diarrhea; and athletes who have re-

ceived immunizations within the previous 48 hours, particularly when associated with a febrile reaction.

B. *Evaluate General Physical Condition:*

Determine the type and duration of training activities during the previous month. The extent of work which has been done in the heat should be determined and the training activities evaluated.

C. *Measure Temperature and Humidity on the Practice or Playing Field:*

Measurements should be made before and during the activity and recorded. The activity level should be adjusted according to the environmental conditions. Activity should be decreased if hot or humid conditions are present. (See Table I.) Unnecessary clothing and equipment should be eliminated under these conditions.

D. *Acclimatize Athletes to Heat Gradually:*

Acclimatization is an adaptative process which results in a diminution of the physiological strain produced by the application of a constant environmental stress. The achievement of the acclimatized state is marked by a dramatic improvement in the ability to work in the heat, accompanied by a diminution of discomfort.

Most adverse reactions to environmental heat and humidity occur during the first few days of training. Acclimatization to heat requires work in the heat, and salt and water replacement. Heat acclimatization for the athlete is important in allowing sweat production to begin at a lower skin temperature and more sweat to be produced per gland. The sweat of an acclimatized athlete contains much less salt. Changes also take place in the circulation which allow more blood to get to the surface with less work load on the heart. Both the blood volume and blood flow are increased.

Acclimatization Process

An athlete's vacation may be spent working in air conditioned comfort, in a sedentary occupation, or not working at all. Consequently, many football players are not acclimatized to heat when formal practice begins. The ideal, of course, is to have athletes acclimatized or conditioned to work in the heat before they report for opening day practice. This ideal may be attained by urging each athlete to exercise regularly on his own initiative each day for the four to six week period immediately preceding the opening of fall practice. Three or four hours daily of moderate *work in the heat* for a four to seven day period is the minimum time required for heat acclimatization to occur. In view of this, a graded type of conditioning program is suggested. A program of graded intensity will allow the athlete to safely reach a state of physical condition after four weeks so that he can safely begin the three or four hours of work in the heat at the end of that time. Then, and only then, should full clothing and equipment be allowed.

TABLE I

USE OF THE WET BULB GLOBE TEMPERATURE INSTRUMENT TO DETERMINE ENVIRONMENTAL CONDITIONS FOR FOOTBALL

I. Application of Safety Index
Each component of the instrument has been given a factor of importance, as relates to heat stress, in arriving at a safety index or scale. The index reading is obtained by adding:

0.1	×	the dry bulb temperature
+0.2	×	the black bulb temperature
+0.7	×	the wet bulb temperature
WGBI		Index

II. Adjust Activity Accordingly During Acclimatization Period

WBGI Index	From 82 to 85 degrees	light exercise
	From 85 to 88 degrees	no exercise but may give instructions in the shade
	Above 88 degrees	all activity discontinued

III. After Acclimatization (10 days)

WBGI Index	Above 85 degrees	strenuous exercise is stopped
	Above 88 degrees	all exercise is stopped

IV. A. When the wet bulb reading is within three degrees of the dry bulb reading, all activity should be suspended.
B. When the wet bulb reading is from 3 to 5 degrees below the dry bulb—helmets, sweat shirts, and shoulder pads should be discarded and activity slowed down.
A & B. Apply to both the acclimatized period and afterwards.

For information regarding parts, costs and construction of a Wet Bulb Globe Temperature Instrument write to: School Child Health Committee, Medical Association of Georgia, 938 Peachtree Street, NE, Atlanta, Georgia 30309.

Athletic participation in heat has its own peculiar nutritional problems. Foremost among these is insuring that the athlete gets an adequate amount of salt and water.

Many coaches withhold water from athletes on the basis that water deprivation makes the athlete "tougher and stronger." There is absolutely *NO* scientific evidence to support this erroneous opinion. Medical research indicates that during work in the heat it is necessary to replace water hour by hour. Salt should be replaced daily until acclimatization to heat occurs. It must be remembered—athletes get into trouble from too little water; rarely *if ever* from too much.

E. *Body Weight Loss During Activity in the Heat:*

Each player should be weighed daily, before and after each practice session. Blyth and Burt have shown that sweat losses of the magnitude of 3% of the body weight lead to a considerable reduction in work performance. The trainer and team physician should check recorded weights daily and anybody with a weight loss greater than five pounds should be

observed closely, and any weight loss over 10 pounds during any practice session should be considered dangerous. Failure to regain weight overnight, which was lost the previous day, usually indicates dehydration of the athlete. Under such circumstances more fluid should be taken by the athlete. The well-conditioned athlete who continues to lose weight for several days must be carefully evaluated.

F. *Rest Intervals and Salt and Water Replacement:*

During the acclimatization period ten minute rest intervals should be provided every 30 minutes. Ten ounces of saline (cold water with a salt concentration of four tsp per gallon) should be taken during each rest break by every athlete for the first three days. The salt concentration may then be reduced to three tsp per gallon for the next week and then two tsp per gallon thereafter until cool weather.

The same quantity and quality of saline solution should be given before and after each practice session during the acclimatization period. Thereafter, the salt included in the normal food intake will generally suffice.

Rest should be in cool, shaded areas with some air movement. Hot brick walls or hot benches should be avoided. Jerseys and helmets should be removed and other equipment and clothing loosened.

During the acclimatization period white, lightweight clothing should be provided with a loose fit at the neck, waist and sleeves. Shirt tails should be left out. All items of clothing should be clean daily. Initial workouts are best conducted in shorts and T-shirts.

Excessive padding, taping, long stockings, long sleeves, double jerseys, sweatsuits and rubberized clothing should be avoided.

The less clothing and the more bare skin that can be exposed, the better off the athlete will be from a heat injury point of view.

Treatment

Heat Stroke: When heat stroke is suspected the athlete should be stripped, fanned and kept moist while being hurried to the hospital. Upon arrival at the hospital the fever should be lowered to 102° in less than an hour, preferably in a tub of water with ice.

The patient's rectal temperature is recorded continually and suction equipment is made available for use when necessary. A tracheostomy may be necessary to maintain a good airway. The extremities are massaged and 50 mgs of Chlorpromazine is administered intravenously and repeated every 30 minutes up to a maximum of 200 mg. In addition, a continuous intravenous saline drip is started.

When rectal temperature has been lowered to 102°, treatment may be continued in an air conditioned room, where fanning or hypothermic blankets are used as needed. Blood pressure, pulse, arrhythmias or pulmonary edema must be normalized. Other secondary disorders are also treated as they arise. Be cautious that the temperature does not begin to rise again.

Heat Exhaustion: This disorder may be due to inadequate replacement of body fluid or salt as the result of prolonged sweating. Water depletion heat exhaustion usually develops over several days through inadequate fluid intake. Symptoms are progressive daily weight loss and decreased urine output and, if the athlete is allowed to continue under stress, an acute heat reaction may follow. Dehydration and mild cerebral dysfunction such as incoordination, restlessness and abnormal sensation or prickling or burning occur. Pushed further the athlete goes into heat stroke.

In the early stages of heat exhaustion, treatment is removal of the athlete to a cool environment, replacement of fluid over two or three days and reacclimatization. Advanced stages of the condition require hospitalization.

Heat Exhaustion, salt depletion type, occurs to the unacclimatized athlete who is exposed to severe heat stress. The symptoms include fatigue, weakness, headache, nausea, vomiting, loss of appetite, muscle cramps and possibly diarrhea or fainting. Urine output is usually near normal but almost salt-free. Other laboratory studies include hemoconcentration with low plasma volume, high blood urea nitrogen and low serum sodium. Reduced circulatory volume, particularly with vomiting or diarrhea, may cause fainting or shock. Treatment is replacement of fluid and electrolytes under clinical and laboratory control, in a cool place.

Summary

The following suggestions are offered to help prevent heat exhaustion and heat stroke during hot weather athletic activity.

1. Most adverse reactions to environmental heat and humidity occur during the first few days of training.
2. Require a careful medical history and check-up prior to beginning practice.
3. Acclimatize athletes in hot weather activity by carefully graduated practice schedules.
4. Provide rest periods of ten minutes each half hour during workouts of an hour or more in hot weather.
5. Supply white clothing which is loose and comfortable.
6. Furnish extra salt and water in recommended amounts during hot weather.

7. Watch athletes carefully for signs of trouble, particularly the determined athlete who may not report discomfort.

8. Remember that the temperature and humidity, not the sun are the important factors. Heat exhaustion and heat stroke can occur in the shade.

9. Weigh athletes before and after each workout. Evaluate carefully those that lose 3% of body weight or more.

10. Check environmental conditions (Wet Bulb Globe Temp) before and during practice and games, and adjust activity accordingly.

11. Heat stroke is an acute medical emergency that requires prompt proper treatment.

545 Baptist Professional Building

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The Wet Bulb Globe Temperature Instrument as Adapted for Use in Football Practice in the Chattanooga-Hamilton County Schools. 1965-1966. Personal Communication with William R. Buttram, Jr., M.D.

DRUGS ANONYMOUS

Presently pending in the United States Senate is legislation that provides for compulsory prescription of drugs under their generic name in many of the health programs financed by federal tax monies.

On December 10 last year, the MAG Council adopted a resolution placing the Association on record in vigorous opposition to the enactment of legislation establishing the principle of compulsory generic prescribing under Medicare, Title XIX, or any other governmentally financed civilian program.

Below is a summary from a brochure by the Pharmaceutical Manufacturers Association entitled "Drugs Anonymous." Inasmuch as the intent of the MAG resolution and the conclusions of this brochure are married in spirit, if not in specifics, it is presented here as a matter of topical importance worthy of consideration.

Summary

Those who advocate generic prescribing overlook the fact that there can be important variations between medicines containing the same active ingredient.

These variations often produce important differences in medical results.

Variations cannot be avoided when drug products are prescribed without identifying the manufacturer, because the generic name identifies only the active ingredient in the medicine and does not specify the finished drug product desired.

A brand name or trademark identifies a specific medicine. The physician thus knows exactly what drug preparation his patient has taken. He can assess its value and chart his future treatment of the patient accordingly.

If the physician prescribes by generic name, without specifying the source of the product desired, he has no control as to which product is provided to his patient.

Dispensing prescriptions written in generic terms would not necessarily result in lower prices to the consumer, but it could and probably would bring about deterioration in the quality of medical care—through the wide sale of substandard products—by discouraging the struggle for excellence which has marked the astounding progress in the pharmaceutical field—and by impeding drug research on which future progress depends.

MAG Resolution

WHEREAS, Federal legislation to amend Title XVIII and Title XIX of the Social Security Act to require filling of prescriptions on a compulsory generic basis is an eminent possibility in the 90th Congress, and

WHEREAS, The establishment of any system, either by statute or regulation, to compel the pharmacists to substitute generic equivalents for brand name prescriptions would circumscribe the physician's choice of drugs and restrict the exercise of his best medical judgment, and

WHEREAS, The enactment of such legislation applicable to Title XVIII would be in obvious conflict with the intent of Congress as expressed in Section 1801 of Title XVIII, and

WHEREAS, Prescription by compulsory generic formula makes the cost of drugs a higher priority consideration than the quality of drugs, which is unfair to the physician and potentially dangerous to the patient; and

WHEREAS, The enactment of such legislation would inevitably lead to the extension of this principle to other federal health programs;

Now Therefore Be It Resolved, That the Medical Association of Georgia does hereby go on record expressing its vigorous opposition to the enactment of legislation establishing the principle of compulsory generic prescribing or filling of drugs under Titles XVIII OR XIX or any government civilian program in current operation or which may be forthcoming.

Adopted by the
Council of Medical Association of Georgia
December 10, 1966

EXPERIENCES WITH THE USE OF NITROFURFURYL METHYL ETHER (FURASPOR® CREAM) IN THE MANAGEMENT OF DERMATOMYCOSES

Glenn E. McCormick, M.D., *Decatur*

THE ADVENT OF systemic (oral) pharmacotherapy for the more common dermatomycoses has not obviated the use of topical agents for relief and cure in these conditions. Monilia (Candida) albicans is resistant, and may overgrow, when oral medication is used; and systemic toxicity is sufficiently severe and frequent to warrant maximal use of locally applied antifungal agents either alone initially, or in combination with oral therapy, in order to reduce the risk of untoward effect.

For these reasons it was interesting to study the efficacy and safety of a topical cream* said to be effective against candida as well as microsporum, trichophyton, and epidermophyton species, in patients whose infections had resisted other therapy, or in whom there had been recurrence of dermatophytosis after temporarily effective treatment.

Methods

A series of 101 private white patients were studied. Their ages ranged from seven months to 73 years (median age—26 years). Sixty were males and 41 females. History of allergy of hypersensitivity was denied by 89 patients; seven were allergic to penicillin and one to codeine, and two reported hypersensitivity to certain foods. About two-thirds of the patients reported use of other medications previously for the same or a related infection. The results could be characterized as "Cure," "Improved," or "Good" in only three of the 101 patients. The study group presented a wide range of dermatomycoses: ringworm (largely tinea cruris) of the head, torso, limbs, and inguinal-perineal area, onychomycosis, intertrigo, and other states which could not be diagnosed specifically on an anatomic basis alone. Other conditions of skin or body orifices also were present. These concurrent conditions, found in about half of the patients, did not contraindicate the intended therapy.

Scrapings or swabs from the affected area were examined in the office by means of both acridine orange stained smears and KOH-treated smears, for the appearance of skin cells and organisms, in order to institute therapy promptly. Cultures on Sabouraud's medium and on a special ("Eaton") experimental medium were used to confirm the preliminary direct microbial diagnosis. The Eaton medium was intended also for possible rapid differentiation between candida and other yeast forms and bacteria. Such differentiation is relatively laborious with Sabouraud culturing, and the testing of the proposed new medium was one of the purposes of the present study. Microscopy and culture reports are summarized in Table I, and the organisms identified are listed in Table II.

Patients were instructed to wash and dry the lesion area thoroughly and rub in the cream until it disappeared, morning and night (or as otherwise directed), until one week after disappearance of lesions. In the majority of the patients, treatment continued for one to three weeks.

Results were graded on the basis of at least one follow-up examination, as follows: *Cure,* eradication of the organism and restoration of normal epithelial surface; *Improved,* disappearance of the lesion but incomplete eradication of the organism; *No effect,* unchanged degree of infection and lesion appearance; *Worse,* increase in severity of infection with progress in size and appearance of the lesion.

Results

The dermatomycotic state was improved or cured in 98 of the 101 patients, with cure resulting in about two-thirds. When these results are analyzed by the specific microorganism identification, it is apparent that the cream was especially efficacious in *Candida albicans* infections (73% cures, and the remainder improved). The cure rate dropped to 40% with *Trichophyton rubrum,* with another 48% of these patients showing improvement. Patients with in-

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* *Furaspor® Cream, supplied by Eaton Laboratories Division, The Norwich Pharmacal Company: nitrofurfuryl methyl ether 1% in a vanishing cream base.*

fectious *Trichophyton rubrum* were the only groups in which there were "no effect" patients. Although there were only 22 cases of infection with *Trichophyton mentagrophytes, Microsporum gypseum,* and *Microsporum canis* combined, it is notable that each of these patients showed either cure or improvement.

Widespread *Trichophyton rubrum* infections and some fungi of tinea capitis were responsible for many of the failures of the cream to eradicate organisms completely, and the writer thinks that oral medication is almost always necessary in the treatment of these conditions. The Furospor cream reduced the severity and extent of the lesions, at the very least, and curtailed the amount of oral antimycotic agent required for cure, as well as the duration of systemic therapy.

In 87 of the patients there were no untoward effects. Slight to moderate burning or other irritative effect was reported by 14 subjects, nine of whom discontinued use of the medication. One patient discontinued use of the cream because of dissatisfaction with the rate of improvement. Each of the ten patients showed improvement at the time therapy was discontinued. There were no allergy or hypersensitivity reactions. The medication was well accepted by all patients, and was well tolerated with the foregoing exceptions.

Table I shows that the acridine orange stain was not as accurate as the standard KOH method, for rapid preliminary office identification of organisms or screening mycotic from non-mycotic lesions: 22% positive results, as compared with 78% by the KOH method. In addition, I feel that the usual office technician would find the method too involved. It would devolve upon the physician to familiarize himself with the method and with the organisms, and the method does not offer sufficient advantage to offset this handicap.

Table I shows also that the Eaton medium yielded a smaller proportion of correct positive reports, and a larger percentage of false negatives, than the standard Sabouraud medium, when all organisms are included in a single statistic. But when only the 52 cases of moniliasis are considered, it becomes apparent that most of the false negative results with the

TABLE I

RESULTS OF LABORATORY STUDIES: 101 REPORTS

Result	Direct Microscopic: Acridine-orange stain	Direct Microscopic: KOH smear	Culture: Sabouraud	Culture: Eaton
Positive	22	78	95	69*
Negative	68	6	4	24
Ambiguous (±)	6	16	2	7
Questionable	5	1	0	1†

* Includes 6 which were positive on re-culture.
† Questionably negative.

TABLE II

ORGANISMS REPORTED

No. of Patients*	Organism
53	Candida (Monilia) albicans
25	Trichophyton rubrum
14	Trichophyton mentagrophytes
6	Microsporum canis
2	Microsporum gypseum

* In one case no organism was identified.

Eaton medium were with other species; with *Monilia albicans* there were only five (less than 10%) negative results. Furthermore, in the 11 instances in which the Eaton-culture and the Sabouraud-culture results disagreed, the Eaton result was correct in four (while the Sabouraud result was falsely negative in two and equivocal in two).

Discussion

Both by clinical and by microbiologic criteria, the nitrofurfuryl methyl ether cream was impressively effective and enjoyed a high degree of patient acceptability. It was most effective in candidiasis (moniliasis), a condition present in one-half of the study group; but its efficacy in the more stubborn *Trichophyton rubrum* cases also was satisfactory, and often therapy with this cream was successful in patients in whom one to several of the more popular antimycotic agents had been used without satisfactory benefit.

It would seem desirable to treat dermatomycoses initially by local medications, and to administer oral antimycotic drugs only after there is no response, or a plateau of partial response, to the local agent. Thus in tinea capitis, or in *Trichophyton rubrum* infections which involve large areas of skin, this cream may be used with the expectation of following or supplementing it with oral medication. Such a regimen should minimize exposure of the patient to the potentially toxic systemic drug and reduce the overall hazards of treatment.

In my experience, use of a corticosteroid preparation topically for one or two days prevents irritation when the cream is used on the next day and thereafter. Also, if irritation occurs during use of the cream it can be discontinued and a steroid used for 24 to 48 hours, after which the cream therapy can be reinstituted without subsequent difficulty.

Of the yeast colonies growing on Sabouraud's agar, 96% could be identified as *Candida albicans* or Candida species quickly and without further laboratory procedures when subcultured on Eaton Culture Medium. No definitive identification of yeast species is possible using Sabouraud's agar alone. The experimental Eaton medium seems to offer interesting possibilities for rapid and relatively simple cul-

tural differentiation of Candida species, as compared to the use of Sabouraud's medium. The value of the Eaton medium was demonstrated when routine cultures from patients with tinea cruris revealed a high percentage of concomitant *Candida albicans* infection. The incidence of *Candida albicans* involvement in tinea cruris infections in this study was approximately 25%. The presence of yeasts in the media were verified by appropriate stained slide preparations.

The significance of this result with the Eaton medium is immediately apparent. Tinea cruris infections complicated by concomitant *Candida albicans* infections do not respond completely to griseofulvin treatment because of its lack of activity against *Candida albicans*. This duality of infection probably occurs more often than hitherto reported. Not all fungi may grow on the Eaton medium, however, and it may be advisable to use both media for both comprehensive and rapid cultural identifications. The use of Sabouraud's medium plus the Eaton medium would cover the range of mycological media requirements for a dermatologist. If the cost of the medium is not unreasonable, it could be used as routinely as Sabouraud's agar.

Conclusions

In a study of 101 patients suffering from infection with several fungi in various locations on the body, treatment with a vanishing cream containing nitrofurfuryl methyl ether was followed by cure or improvement in 98% of the subjects. The overall cure rate of about 64% increased to 73% in the presence of *Monilia (Candida) albicans* infection. Mild to moderate irritation occurred in 14 patients, nine of whom discontinued use of the medication.

The cream is an effective topical agent in the dermatomycoses encountered in this study. No generalized rash or other evidence of systemic side-action appeared.

The Eaton medium offers the possibility of rapid cultural differentiation between yeasts (monilial) and other mycoses.

558 Medlock Road

HIGHLIGHTS OF THE ACTIONS OF THE MAG COUNCIL MEETING, JUNE 3-4, 1967

This summary is being published so that the MAG membership may be advised in brief of the actions of the Association's Council and Executive Committee. It covers only major actions and is not intended as a detailed report. Full minutes of these meetings are available upon any member's request to the MAG Headquarters Office.

MAG Military Medicare Contract Renewal recommendations from the Association Medical Review and Negotiating Committee were presented and the Council voted to renew this MAG contract with the Office of Dependents Medical Care on the basis of "usual, customary and prevailing fees" with reimbursement to physicians in similar fashion as is presently done under Social Security Medicare.

Site of AMA 1972 Clinical Convention was discussed and Council voted to extend an invitation to the American Medical Association to convene this meeting in Atlanta, Georgia, on November 26-29, 1972. This invitation will be considered by the AMA Board of Trustees for recommendation to the AMA House of Delegates at this forthcoming meeting June 18, 1967, at Atlantic City.

MAG House of Delegates Actions taken at the 1967 Atlanta meeting were reviewed and those actions requiring MAG Council implementation were acted upon as requested by the House. A Special MAG Finance Committee was appointed, a hospital chart study committee was named, a "central billing for dues collection" study committee was set-up as well as certain other actions for Council to carry out.

1967-68 MAG Committee Appointments as recommended by Executive Committee were approved by Council. Many new Committee Chairmen and members were appointed in an effort to tap new MAG member-leadership.

Legislative Committee Report detailing the MAG Annual Luncheon for the Georgia Congressional Delegation convened for medical liaison purposes was presented. Legislative Chairman J. Frank Walker and Dr. Pinson gave a very favorable report on this activity and were commended by Council.

Georgia Regional Medical Program (Heart, Cancer, Stroke and Related Diseases) activity to date was reported on by GRMP Program Coordinator J. W. Chambers. Of special interest was the fact that GRMP Program Director J. Gordon Barrow has now assembled a full-time staff and a very successful meeting of the "local hospital advisory groups" was convened June 4, 1967, in Atlanta with over 100 physicians in attendance.

Other Council Actions included approval of a Cancer Society education program resolution; a recommendation concerning fiscal carrier for Title 19; a report by the MAG Delegates to AMA on the forthcoming Atlantic City Annual Convention of AMA; and a report on proposal MAG Field Service projects for County Medical Society implementation.

Special Article

MEDICINE IN AFGHANISTAN

John H. Ridley, M.D., *Atlanta*

THE OVERALL PICTURE of gynecology in Afghanistan is one of amazing need and amazing opportunity. The women and also their men are awakening to the importance of good gynecologic and obstetrical practices. There is the feeling of urgency, if not emergency, that these women should be properly cared for and by the most modern means. When one realizes that it has been only since 1959 that the Chaderi, or complete veil, has been removed from the women and that they are now beginning to be recognized as the part of society needing modern medical care and education, it is obvious, therefore, that the role of the gynecologist fits directly into this social revolution of the women of Afghanistan. Although there has been one previous visiting specialist in Obstetrics and Gynecology with the Peace Corps in Kabul, I had the privilege to be the first specialist specifically working in Gynecology with the Afghans and to represent MEDICO.

An Unique Opportunity

Afghanistan, being a most rapidly progressing nation—with yet a long way to go—and being a nation at the crossroads between the Western Democracies and Communism, presents an unique opportunity for the American, chiefly the doctor, to influence its neutrality towards democracy. Fundamentally the Afghan people much prefer the American way of practicing and teaching medicine, although they have had an opportunity to see those ways of the Russians, West Germans, French, Czechoslovakians.

Therefore, it has been impressed upon me for the above mentioned reasons that every effort should be made to contribute as actively as possible to the CARE-MEDICO program in Afghanistan. In these underdeveloped and underprivileged nations the doctor has the best opportunity, including all professions and businesses, to act as an Ambassador. This has been said time and again by the people with whom the doctor works and those that he tries to help through his practice. In Afghanistan it was found that medical colleagues, both Afghan and American, were most helpful and cooperative, and that the people were most appreciative. The visiting specialist will find that he will have a very busy schedule, operating, lecturing, demonstrating, and visiting in the various hospitals and clinics. Although it was not surprising that many unusual and complicated cases were saved for the visiting specialist, it was truly amazing by what volume these cases were presented through consultations and through the clinics which rapidly increased in volume as the stay of the specialist progressed.

Active Teaching Schedule

The teaching schedule is very active, interesting, and demanding. In the course of the month of July, 1966, fourteen formal lectures were given to the house staff members and medical students on basic gynecology, gynecologic pathology, and obstetrics. These lectures were given in English and enthusiastically attended by the Afghan doctors who were interested not only in learning, but in preparing themselves for the E.C.F.M.G. which might qualify them for further training in a foreign country, including the United States. It should be emphasized here that because of some expected language difficulty, although the lectures were given in English, slides and charts were of the greatest help in basic understanding. Although there was available the Ciba collection of Dr. Netter's slides, it would be wise for the visiting specialist to carry numerous 35 mm or other slides with him to facilitate his lectures and demonstrations.

In addition to the above mentioned lectures, the visiting specialists are usually asked to give a lecture on their particular interest to the faculty and student body of the medical school with invited guests from the Afghanistan National Health Services and Press. The particular lecture chosen by this specialist was "Modern Ideas of Contraception." At first there was some hesitancy on the part of the Ministry of Health, Afghanistan being a Moslem country, but then full permission was given to discuss the problem of contraception without censorship. This was done through an excellent interpreter, Dr. Baraki, and was very enthusiastically received, stimulating numerous questions at the end of the formal lecture.

The chief gynecological problems that were encountered in Afghanistan were those one might expect in any underdeveloped and underprivileged country and that is those conditions which are propagated and perpetuated by fear, ignorance, lack of communication, and lack of transportation. Therefore, this included all types of genito-urinary involvement by tuberculosis and cancer, widespread evidence of various venereal diseases, and those conditions aggravated by malnutrition and abetted by ancient social mores and religious superstitions. Unfortunately, there is not a source for irradiation therapy in Afghanistan; therefore cancer, if not seen early enough to be treated by surgery, was sadly and frustratingly turned away. Since there was at the time only one pathologist, and fortunately a good one, in Afghanistan, much of the diagnosis had to be done by the practicing physician or surgeon, falling back on his clinical knowledge and gross interpretation of the various conditions and lesions. Even with these and other major bottlenecks, the visiting specialist will quickly find that he is able to do a great deal of good.

The doctor (and his wife and children) will find that living is pleasant, reasonable, and safe in Afghanistan. The climate for the most part is remarkably good. With a working knowledge of sanitation and a common sense approach to eating and drinking, the visiting specialist can avoid major infections and infestations which are "available" in Afghanistan. Even so he may find himself an occasional victim of a short lived G-I upset which is called for lack of a better name the "Kabul trots." The visiting specialist (and his family) will usually stay in the staff house through an agreement with the U.S. A.I.D. This is comfortable and pleasant.

Most of the gynecologist's work will be at the Zoishgah Hospital (Maternity Hospital) although he will be asked to work at the Avicenna General Hospital and possibly at the other Municipal Hospitals.

When one considers the remarkable work that the doctors and nurses are at present doing at the Afghanistan Hospitals and at the same time contemplates the great potentiality of this operation if given some new and much needed equipment, it is obvious that this could be one of the most fruitful MEDICO projects. It is believed by this visiting specialist that under the present circumstances more good could be done here actually than in South Viet Nam. It is nearly imperative that the Americans continue their good work to substantiate their already well liked and well received reputation of being the best medical teachers and operators. This is particularly true in Afghanistan where the cold war is being fought on the borderline of the Iron Curtain, and in all lines of endeavor whether it be in medicine, engineering, agriculture, or other fields.

It has been a most gratifying experience and certainly one that would encourage return to this fascinating nation some day. It has given me pleasure to forward to the doctors and clinics of the Afghanistan Hospitals a much needed Kidde tubal insufflation apparatus for evaluation of the numerous sterility problems and a year's subscription to the two leading Journals of Obstetrics and Gynecology from the United States. We should make a continuing effort to procure further visiting specialists in Gynecology and Obstetrics, if not for a two year period of time, for at least a month. One will find that the hospitality and living conditions in Kabul are unique and do encourage one to consider returning, what with the furnished housing and transportation and gracious hospitality.

1938 Peachtree Road, N.W.

Editor's Note: Within the past year, Dr. Ridley has spent a month in Afghanistan with the MEDICO program.

1967 CALENDAR OF MEETINGS

State

August 9-13—Sixth Annual Southwide Lawyers and Physicians Conference, "Is Jesus Christ Relevant in Modern Medicine and Law?," Lake Junaluska, N.C.

September 15-16—Tidewater Heart Association (Eighth Annual Cardiovascular Symposium), Golden Triangle Motor Hotel, Norfolk, Va.

September 17-19—Birmingham Academy of Medicine, Tenth Annual Medical Progress Assembly, Parliament House, Birmingham, Ala.

September 18-19—Nineteenth Annual Scientific Sessions of the Georgia Heart Association, Atlanta Marriott Motor Hotel, Atlanta.

October 26-28—A Leadership Course for Chiefs of Staff, Hospital Administrators and Governing Personnel (or Trustees), "Today's Hospital Problems: An Interdisciplinary Approach," sponsored by the Mound Park Hospital Foundation and the University of Florida, Tides Hotel and Bath Club, Redington Beach, Fla.

May 5-7, 1968—114th Annual Session of the Medical Association of Georgia, Augusta.

Regional

July 23-29—Southern Seminar in Obstetrics and Gynecology, Oak Grove Inn, Asheville, N.C.

National

August 27-Sept. 1—American Academy of Physical Medicine and Rehabilitation, The Americana, Miami Beach, Fla.

September 7-9—American Association of Obstetricians and Gynecologists, The Homestead, Hot Springs, Va.

September 15-23—American Academy of General Practice, Dallas.

September 25-26—Congress on Occupational Health, The Regency-Hyatt House, Atlanta.

November 26—Ninth National Conference on the Medical Aspects of Sports sponsored by the American Medical Association Committee on the Medical Aspects of Sports, Hotel America, Houston, Tex.

November 26-29—American Medical Association Clinical Convention, Houston, Tex.

A COMPLEX DIAGNOSTIC PROBLEM: THE DIFFERENTIATION AMONG GONOCOCCAL ARTHRITIS, REITER'S SYNDROME, AND RHEUMATOID ARTHRITIS

James C. Brooks, Jr., M.D.,* *Macon*

■ The literature is reviewed and an illustrative case is presented.

EVERYONE IS FAMILIAR with the difficulties occasionally encountered when one is making an effort to diagnose an arthritic condition. This is not only of academic importance but may be of vital importance because of the wide spectra of sequelae and associated pathologic changes of the arthritides. The more familiar froms of arthritis, i.e., osteoarthritis, rheumatoid arthritis, traumatic arthritis, the arthritis of rheumatic fever, the arthritides of the collagen diseases, the infectious arthritides, and the signs and symptoms associated with inflammation of juxta-articular structures, can usually be distinguished in the majority of cases.

Incorrect Diagnosis Made

However, there is a group of conditions associated with joint changes which often presents a problem, or rather the incorrect diagnosis is not infrequently made. The diagnoses of atypical rheumatoid arthritis, spondylitis with peripheral arthritis, non-specific sterile or septic arthritis, incomplete Reiter's syndrome, and probable gonococcal arthritis are often tentative, partially baseless, expedient or perhaps correct. It is with this group of conditions that this paper deals, i.e., non-classical and/or acute rheumatoid arthritis, Reiter's syndrome and gonococcal arthritis, their interrelationships, differences and possible etiologies.

Brodie[32] described an arthritic syndrome in 1818 associated with conjunctivitis and urethritis. Hans Reiter[31] described the same condition in 1916 but believed the causative agent was a spirochete. Classical Reiter's syndrome has come to be known as an acute polyarthritis following a urethritis and conjunctivitis of nongonococcal etiology.

Europeans and Asians consider dysentery (especially the *Shigella* organisms) to be important etiologically and as a clinical feature. Paronen[23] presents a large series of Finnish cases in which severe diarrhea preceded or accompanied the syndrome. The arthritis of ulcerative colitis may be related to this facet. Some investigators rigidly adhere to the requirement that all three features of the triad be demonstrated before a diagnosis of Reiter's syndrome be made, the foremost proponent of which is Weinberger[30] in his very extensive survey. Others are more liberal in their criteria.[6, 32]

Gonococcal Arthritis

The features of gonococcal arthritis are like those of any other acute arthritis and often consist of quite septic qualities. It usually follows an acute gonococcal infection, usually urethritis or cervicitis, by one to four weeks.[29] There are no objective or subjective findings short of culture of the causative organism, *Neisseria gonorrhoeae,* which will undeniably support a positive diagnosis of gonococcal arthritis.[12] This view is held by the majority of internists. A high index of suspicion is raised, however, when an acute, septic-like polyarthritis develops a few days to weeks after sexual exposure, particularly extramarital, acute lower genito-urinary tract infections, in a case of known pelvic inflammatory disease, in a young person in his or her teens or twenties, and/or particularly in the Negro race. Keefer[1] has emphasized latent gonococcal infection, particularly in the female, as a cause of acute gonococcal arthritis. Thus childbirth, douches, and other manipulations may be the only thing in the history to suggest a gonococcal etiology.

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* *Dr. Brooks is a 1966 graduate of the Medical College of Georgia, Augusta. The above scientific paper was written as Dr. Brooks' senior presentation.*

To culture the organism from the synovial fluid is the sine qua non that the gonococcus is the etiological organism. However, because of the notorious difficulty of producing in vitro growth of *N. gonorrhoeae* and the unproven possibility that gonococcal toxins are causative, it is no wonder that positive yields are few. Culture of the organism from the urethral or cervical, and rarely from the conjunctival exudates when the last named is involved, is considered sufficient for a diagnosis of probable gonococcal arthritis. Recently a gonorrhea-like syndrome caused by penicillin-resistant *Mimeae* (*Mimea polymorpha* most frequently) has been described in detail.[26] These writers do not mention the occurrence of arthritis in the syndrome, but the occurrence of an organism morphologically indistinguishable, frequently intracellular and having culture properties similar to gonococci, can be very confusing as regards a definitive diagnosis.

Test Not Helpful

Wright[32] found the gonococcal complement fixation test (GCFT) not to be helpful, as over 85% of both Reiter's and gonococcal arthritics gave positive results. This will vary depending upon the specificity of the GCFT reaction. The possibility that the organisms causing each syndrome are contracted together, since Reiter's syndrome frequently follows sexual contact, or that antibodies to gonococci are present from previous or latent infection in a patient with definite Reiter's syndrome, must be considered. Hess[17] has reported his experiences with an immunofluorescent technic and found the following: definite gonococcal arthritis 86% positive, probable gonococcal arthritis 49% positive, active Reiter's syndrome 17% positive, no cross reactivity of gonococcal antisera with *Mimea polymorpha* organisms.

Lesions in Reiter's Syndrome

Much has been said about the cutaneous lesions and frequently of mucous membrane lesions in Reiter's syndrome. Among the reported lesions are hyperkeratosis of the soles and palms, circinate ulcers of the glans penis and infrequently of the shaft and scrotum, and a mild stomatitis with superficial, painless ulcerations.[30] Weinberger[30] considers them salient and frequent features of the syndrome, but it is to be noted that his diagnostic criteria are quite rigid. Incidences of penile lesions have varied from 26% to 79% and of oral lesions from 3% to 48% in various series surveyed by Pindborg.[24] Wright,[32] a proponent of less stringent criteria, encountered keratodermia blennorhagica in only 5.9% of his patients. Lesions which might be confused with those of Reiter's syndrome have been reported,[1] especially when there is a transient or fulminant gonococcemia. Overwhelming gonococcemia presents with severe arthritis and cutaneous lesions but is often so severe as not to enter into the differential diagnosis of a primary arthritic disease. An excellent discussion of gonococcemia has been presented recently by Ackerman.[1] One should probably consider the possibility of gonococcal bacteremia or septicemia in a suspected gonococcal arthritic when there are severe tender and pustular cutaneous lesions and a very febrile course. Thus, blood cultures for gonococci would be in order.

Hench in 1946[16] stated that gonorrhea was just one more infection, like respiratory infections, pharyngitis, pyelonephritis, tonsillitis, etc., which could precipitate an attack of rheumatoid arthritis. He did not recognize a gonococcal arthritis and it is interesting to note that he did not list Reiter's syndrome as one of the seven arthritides comprising 80% of the some 100 arthritic conditions he recognized. He pointed out the subsequent slow course of so-called gonococcal arthritis eventually with symmetric fusiform phalangeal deformities of rheumatoid arthritis. Hench considered the great majority of arthritis associated with gonococcal infections to be rheumatoid arthritis and that gonococcal arthritis was quite uncommon, like all septic arthritides, and very likely to be associated with severe cartilaginous destruction. Some authorities today believe gonococcal arthritis to lead very early to joint destruction and ankylosis. Kirby[3] considers this to be especially true when the gonococcal arthritis becomes monoarticular; he notes a much higher synovial fluid culture yield. Harrison[15] believes the very severe pain of gonococcal arthritis leads very early to flexion contractures.

Self-limiting

On the other hand, Wright[32] in 1963 in his comprehensive review of the literature on arthritis associated with venereal diseases, concludes that pure, uncomplicated gonococcal arthritis is usually self-limiting and rarely associated with destructive or permanent residual joint changes. Vandervort[29] in 1963 reports similar results but also states that an obviously infected joint was more likely to develop deformity. It is difficult to observe sequelae today because of the wide use of penicillin and the extreme sensitivity of *Neisseria* to it. It would be well to consider a polyarthritis becoming monoarticular and associated with greater systemic signs to be more likely to result in joint destruction.

Wright[32] presented criteria for the diagnosis of the arthritis associated with venereal disease after analysis of 214 cases at Johns Hopkins Hospital. He required that *N. gonorrhoeae* be seen or cultured from the joint or tendon sheath for a diagnosis of positive or definite gonococcal arthritis. The diagnosis was probable when the urethritis or cervicitis was

of proven gonococcal etiology and the articular manifestations responded to penicillin. Reiter's syndrome could be diagnosed when the urethritis or cervicitis was abacterial or non-gonococcal and the arthritis continued in the face of a clearing genital infection due to appropriate antibiotic therapy. After 62 of the 214 were deleted for various reasons, Wright's results were thus: definite gonococcal arthritis 19%, probable gonococcal arthritis 47.5% (six females to one male in this group), and Reiter's syndrome 35.5% (*very* few females in the group). He found the incidence of Reiter's syndrome unchanged through the presulfa, sulfa and penicillin eras.

Wright also noted the somewhat greater incidence of monoarticular arthritis in gonococcal arthritis when compared with the almost universal presence of polyarthritis in Reiter's syndrome, but noted that both types were more likely to be polyarticular. Both types characteristically affected the larger joints, particularly the weight-bearing joints, while Reiter's syndrome was considered never to have involved the elbow. One might mention at this point that Wright did not require the presence of conjunctivitis to diagnose Reiter's syndrome.

Most reporters state that the attacks of arthritis of Reiter's syndrome are usually recurrent with little clinical or radiological evidence of disease between attacks.[6, 30, 32] However, this is helpful only in retrospect but does serve to point out a distinction between it and classical rheumatoid arthritis, which nearly always leaves residual damage or persists at a low-grade activity. The present writer might question the presence or absence of changes early in the disease as being particularly helpful as diffuse osteoporosis is dependent upon disuse due to severe pain and is dependent upon the mental attitude of the patient, the degree of pain relief he has been able to obtain and the duration of the acute attack. The more severe changes occurring after a longer time would, of course, offer little problem.

Ocular Lesions

While Weinberger[30] did insist the triad be demonstrated, he noted that it might be demonstrated in any order and completely only after several arthritic attacks over a period of years, 34 in one case! The conjunctivitis may be so minor that it goes unnoticed.[30, 32] Other ocular manifestations—iritis, keratitis, retrobulbar neuritis, episcleritis—are rare, and when the patient denies urethritis, can be very confusing and cause one to think more of rheumatoid arthritis. There is no series of pathologic reports on ocular lesions of Reiter's syndrome so that a comparison with those of rheumatoid arthritis can be made, an important comparison for etiological reasons.

It can be stated that if a patient indeed has gonococcal arthritis, the articular manifestations will clear concomitantly with or shortly after the subsidence of the genital tract infection. It is widely held that no penicillin-resistant gonococci have yet been discovered. If the arthritis continues in the face of the clearing urethritis, or if they both continue in spite of antibiotic therapy, then the diagnosis of either Reiter's syndrome or rheumatoid arthritis is probable. This is a negative way to make a diagnosis but the fact remains that gonococci or gonococcal-like organisms in the urethral or cervical discharge do not constitute a definitive diagnosis. While a search should be made for the organism, particularly when they are found in the genito-urinary tract, penicillin should not be withheld. This brings the reader to the distinction most difficult to make: Is it rheumatoid arthritis or Reiter's syndrome?

Etiology of Rheumatoid Arthritis

This question evokes yet another which is far more important and obscure, that of the etiology of rheumatoid arthritis. Many investigators have repeatedly found or cultured certain organisms—pleuropneumonia-like organisms, *Mycoplasma* and L-strain organisms from the genito-urinary tract and occasionally from the synovial space of patients with various arthritic conditions.[7, 11, 30] Both Reiter's syndrome and rheumatoid arthritis have given the highest positive yields. However, Ford[12] in 1964 states that he has not been able to substantiate a cause-and-effect relationship between any organism, viral or PPLO, and the arthritis complicating genito-urinary tract infections. He had earlier in 1963[11] pointed to the very strong suspicion of a relationship, but at that time stated that Koch's Third Postulate had not been fulfilled using human PPLO. His 1964 paper produced still further lack of proof. On the other hand, Findlay[9] has produced a polyarthritis in rats and mice very similar to human rheumatoid arthritis using certain strains of *Mycoplasma*. Furthermore, Thomas[28] has pointed out the antibody-invoking capacity of Eaton's agent *(Mycoplasma)* in primary atypical pneumonia with the demonstration of anti-lung-parenchymal antibodies. This will bring to the reader's mind the several cases of rheumatoid arthritis he has probably seen in which a respiratory infection produced a severe exacerbation of the disease. Some investigators have noted inclusions in polymorphonuclear leukocytes from the joints of rheumatoid arthritics. Some have suggested that these inclusions might be viral or antibody-organism complexes,[33] while others have demonstrated them to be a 7S (svedberg)-19S beta or gamma globulin complex, the 19S component being the rheumatoid factor, the factor indicated by positive latex flocculations.[8] Incidentally, it is becoming more and more accepted that cellular changes produced by these inclusions,

as has been observed in gout, brings about lysosome rupture and the enzymes released are at least in part responsible for the synovial inflammation.

Grimble[14] in 1965 pointed out the significant association of prostatitis with ankylosing spondylitis, rheumatoid arthritis, conjunctivitis and uveitis. He noted that 82% of Reiter's syndrome patients had positive antiprostate antibody tests, using phenol-extracted prostate antigen adsorbed to tanned sheep red cells which were exposed to sera which had been incubated with nonprostate-sensitized sheep red cells. Grimble noted 39% positive reactions in ankylosing spondylitis, 20% in uncomplicated prostatitis, and 4% in classical rheumatoid arthritis.

Spinal Involvement

Csonka,[6] Wright,[32] Buchans,[4] Weinberger,[30] Sharp,[27] Lefkovits,[21] Forestier[13] and others have pointed out the high incidence of spinal involvement in Reiter's syndrome and the fact that ankylosing spondylitis may be the most serious sequelae. It is interesting to note Sharp's observations in which 20% of his ankylosing spondylitics were atypical in that they demonstrated features of rheumatoid arthritis—peripheral arthritis, higher incidences of deranged immune phenomena, a higher incidence of aortic valvular disease, involvement of the cervical region as frequently as the sacroiliac segment early in the disease and the rarity of classical "bambooing."

Against this evidence, quite inconclusive in itself, is the absence of positive sheep red cell agglutination tests (SCAT) in Reiter's syndrome, while it is positive in 65% of rheumatoid arthritics, in 30% of rheumatoid arthritics with ankylosing spondylitis and in 2%-3% of classical ankylosing spondylitis.[18] Jacobson in this survey did not present his diagnostic criteria, however. Wilson[31] in 1960 reported similar results with the latex flocculation test but with a total of only three Reiter's syndrome patients. Kellgren[19] in 1959 reported inconclusive results using the SCAT.

Evidence for Relationship

Thus, one comes to a point with no conclusive evidence but with much suggestive evidence for some relationship among Reiter's syndrome, rheumatoid arthritis and ankylosing spondylitis. Is it that certain individuals are predisposed to arthritis and other autoimmune diseases and that infections precipitate an attack through an anamnestic reaction, antigenic overlap or a defective or inaccurate or still yet hyper-reactive host response? Could it be that the type of arthritis, its severity, its anatomical extent and other manifestations are guided along certain lines by a causative organism interacting with the host? These questions remain unanswered. Schmid[25] in 1962, in a well controlled study, noted the higher incidence of rheumatoid arthritis in spouses and blood relatives of rheumatoid arthritics than in those of non-rheumatoid arthritics. He noted a similar clustering of positive latex flocculations. However, Cobb 1965[5] pointed out the psychosocial effects, namely marital selection, living conditions and clustering of family members, which introduce endogenous and exogenous bias into such surveys.

Opinions

Mannik[22] in 1963 noted that certain immunoglobulins were associated with definite groups of alleles at two genetic foci and consequently were capable of transmission. Kellgren[20] in 1964 exuberantly propounded a genetic predisposition stating that 10% of the population is genetically predisposed to rheumatoid arthritis, the great majority being heterozygous, and that the homozygotes will develop the severe form at a younger age! He presents no statistical basis for his conclusions. Ball[2] 1963 noted familial aggregation of positive latex flocculations, but its importance as a genetic marker is not clear. Everyone will probably recall several cases of rheumatoid arthritis with family histories of the same disease and other collagen diseases. Whether this is significant or is only apparently significant due to the differential, intermittent astuteness of the history taker is not known.

A Point Reached

A point is reached now where practical importance supersedes academic importance, that of differential diagnosis and treatment. An acute polyarthritis with a purulent urethritis or cervicitis, especially in the appropriate age group (15-30 years) and particularly in a female, should be considered gonococcal arthritis until either proven otherwise or until penicillin fails to ameliorate the arthritis. A male in the 20-45 year age group likewise should be considered to have gonococcal arthritis. However, the chances of Reiter's syndrome are much greater than in the former group. One should proceed along the same diagnostic line when a history of urethritis is given or when venereal contact and urethritis are denied in a likely age-ethnic group. There is no doubt that infections may precipitate widespread body aches as well as arthralgia, and it is often difficult to assess the efficacy of antibiotic therapy. Antibiotic therapy has not been impressive in Reiter's syndrome.[8, 30]

A positive latex flocculation should be considered good evidence that the disease is rheumatoid arthritis, but its absence does not rule out that disease, since the test is often negative during the first week to months of the disease.[8] Laboratory studies suggestive of a collagen disease (those tests dependent upon al-

tered serum proteins in quantity and quality) and occasionally of lesions due to a vasculitis, should make one highly suspicious of rheumatoid arthritis.

Technics

Immunofluorescent technics to demonstrate gonococcal antibodies, when available, may be very helpful, as will be those to demonstrate antinuclear or anti-perinuclear antibodies, which occasionally are seen in rheumatoid arthritis. The last tend to occur more frequently, however, in the well defined severe rheumatoid arthritics, and these will seldom present a great problem. Handling the joint material carefully and appropriately will give more reliable culture results. The significance of positive cultures for PPLO remains obscure, as are positive cold agglutinin and PPLO complement fixation tests. The qualitative and quantitative studies of synovial fluid constituents are important but seldom can lead one to a positive diagnosis.

Other conditions which might be considered in the differential diagnoses are acute rheumatic fever and Still's disease. These can usually be eliminated by the age of onset, clinical features, and laboratory findings. Lupus erythematosus in the young female may be a problem; however, frank swelling of the joint is not common and the diffusely abnormal laboratory and clinical findings should alert one to the possibility of lupus. Stevens-Johnson's syndrome (erythema multiforme exudativum) has a preponderance of mucocutaneous signs but may occasionally be confused with Reiter's syndrome. Behcet's syndrome at times may resemble Reiter's syndrome but is quite rare. One should look for central nervous system involvment, an important feature of Behcet's syndrome, when the ocular and penile lesions are prominent. Rheumatoid arthritis and psoriasis or psoriatic arthritis often presents a problem. However, the cutaneous lesions are usually characteristic and quite persistent with psoriasis.

Case Report

A case to illustrate some of the problems discussed in this paper is presented below:

R. P., 21-year-old white male, #065-009 E.T.M.H., Augusta, Georgia.

History: Four weeks prior to admission the patient developed pain and swelling in both wrists followed in a few days by a urethral discharge. He sought medical attention from his family physician who reportedly saw gram negative intracellular diplococci in the urethral discharge. A biopsy of the left wrist was consistent with an acute suppurative synovitis. Laboratory data at that time included a negative latex flocculation, negative CRP, ASO titer of 50 Todd units and a WBC of 11,000. He was treated with penicillin with a prompt resolution of the urethritis but with continuation of the arthritis of the wrists, left knee and left acromio-clavicular joints. Shortly after his discharge from the hospital, he consulted a local ophthalmologist for "pink eye," which responded well to local ointments.

Admission history and physical (9-3-65): The patient reportedly had a brother who committed suicide because of severe, debilitating rheumatoid arthritis. Family history is otherwise negative. On physical examination—B.P. 140/90, P. 100. T. 37.7° Centigrade. There was no evidence of ocular or penile lesions. Prostatic examination revealed no tenderness nor exudate on massaging. Heart, abdomen and lungs were within normal limits. Both wrists and both knees were swollen and tender with definite fluid in the left knee. Neurological examination was within normal limits. Admission CBC—13.1 gms. % hemoglobin, 9,000 white cells with normal differential. Urinalysis was within normal limits.

Hospital course: On 9-4-65 an arthrocentesis of the left knee revealed straw-colored fluid. Gonococci were neither seen on smear nor were they cultured. (The material appears to have been handled properly.) The total cell count on the synovial fluid was 8,650 white cells, 90% mononuclear, 150 red cells. Sugar and protein were within normal limits. On 9-5-65 intravenous penicillin therapy was started at the rate of one million units per day. By 9-7-65 the fluid had reaccumulated in the left knee. The patient spiked a temperature to 38° C. daily. With no response of the arthritis to the penicillin and in the face of the continuing febrility, the penicillin was discontinued on 9-19-65. The spikes continued for four more hospital days and the patient was discharged on aspirin 9-23-65.

Follow-up: As an outpatient he was afebrile but his joint symptoms continued unabated. His hemoglobin returned to 15 gms. % while he continued to have a white cell count of 10,000 with a normal differential. Three more latex flocculations were negative over a two months' period. An elevated serum uric acid was noted at one time but returned to normal with discontinuation of the aspirin. The patient subsequently reported some MP and PIP joint pain in the hands with morning stiffness becoming better later in the day. However, the temporal variation was not dramatic. An attending rheumatologist on the house staff examined the synovial fluid for the "R.A. or rheumatoid cells" without productive results. On 11-22-65 the patient was placed on Indocin* (Indomethacin) 75 mg. per day and reported increasing pain relief. Up through his last clinic visit on 12-5-65, or four and one-half months after his initial symptoms, he continued to have pain and swelling in the knees, wrists and left shoulder.

Diagnoses: Initially on admission gonococcal ar-

thritis was considered probable, with Reiter's syndrome and rheumatoid arthritis considered in the differential. It became increasingly apparent that a gonococcal etiology was becoming more remote. The tendency was toward a diagnosis of rheumatoid arthritis while being followed as an out-patient.

This case amply illustrates the confusing picture one sometimes gets in a diagnostic work-up. The sequence of events is not consistent with gonococcal arthritis. However, this is historical evidence and should not determine whether penicillin is to be administered. The patient's physician reportedly saw gonococci or similar organisms in the urethral discharge and the urethritis did respond to penicillin. Thus, gonorrheal urethritis was probable. The presence of conjunctivitis could be coincidental or could indeed be a component of Reiter's syndrome. Acute suppurative synovitis is consistent with both gonococcal arthritis as well as with Reiter's syndrome.[8] There is nothing in the pre-admission work-up to suggest rheumatoid arthritis. His E.T.M.H. work-up added nothing new except further substantiation that the arthritis was not responsive to penicillin. The fever appeared not to be due to penicillin. The joint fluid cell count appeared to negate a bacterial etiology. The admission hemogram is not particularly helpful except to prove a mild anemia, not unexpected in any acute illness. The repeatedly negative latex flocculations do not rule out rheumatoid arthritis and the absence of the "R.A. cell" is even less helpful. The MP and PIP joint involvement certainly suggests that this may indeed be rheumatoid arthritis. It is certainly tempting to use a family history of severe rheumatoid arthritis as a diagnostic clue. Its significance as regards hereditary predisposition is not settled.

Two Entities

Thus in this 21-year-old white male, Reiter's syndrome and rheumatoid arthritis are apparently the two entities to be differentiated. There is strong evidence for Reiter's syndrome, and the patient should be followed closely for the development of clues for a diagnosis of rheumatoid arthritis, while being treated with appropriate anti-inflammatory agents, physical therapy to prevent permanent changes and appropriate counselling in an effort to alleviate the anxiety with which this young man is most certainly burdened.

The conclusions enumerated below summarize some of the points presented in this paper:

1) A patient suspected of having gonococcal arthritis should be treated appropriately—further diagnostic clues may emerge from this treatment;

2) Gonorrheal infection of the genito-urinary tract may occur concomitantly with Reiter's syndrome or rheumatoid arthritis—a gonococcal infection *may* very well precipitate an attack of rheumatoid arthritis;

3) While one cannot diagnose classical Reiter's syndrome without the triad of urethritis, conjunctivitis and arthritis, one should keep an open mind as to the possibility of rheumatoid arthritis actually being a more benign type;

4) A patient who has a diagnosis of questionable rheumatoid arthritis should be treated as though he does, but should not be labelled with the diagnosis—this may prevent much mental anguish and its effect upon the soma;

5) There is no conclusive evidence as regards a common etiology of rheumatoid arthritis and Reiter's syndrome or of distinct etiologies of either —there is much suggestive evidence of an infective and/or immune etiology of the two and only with continued diligent search and investigation with each patient will the true causes be brought to light.

The Macon Hospital

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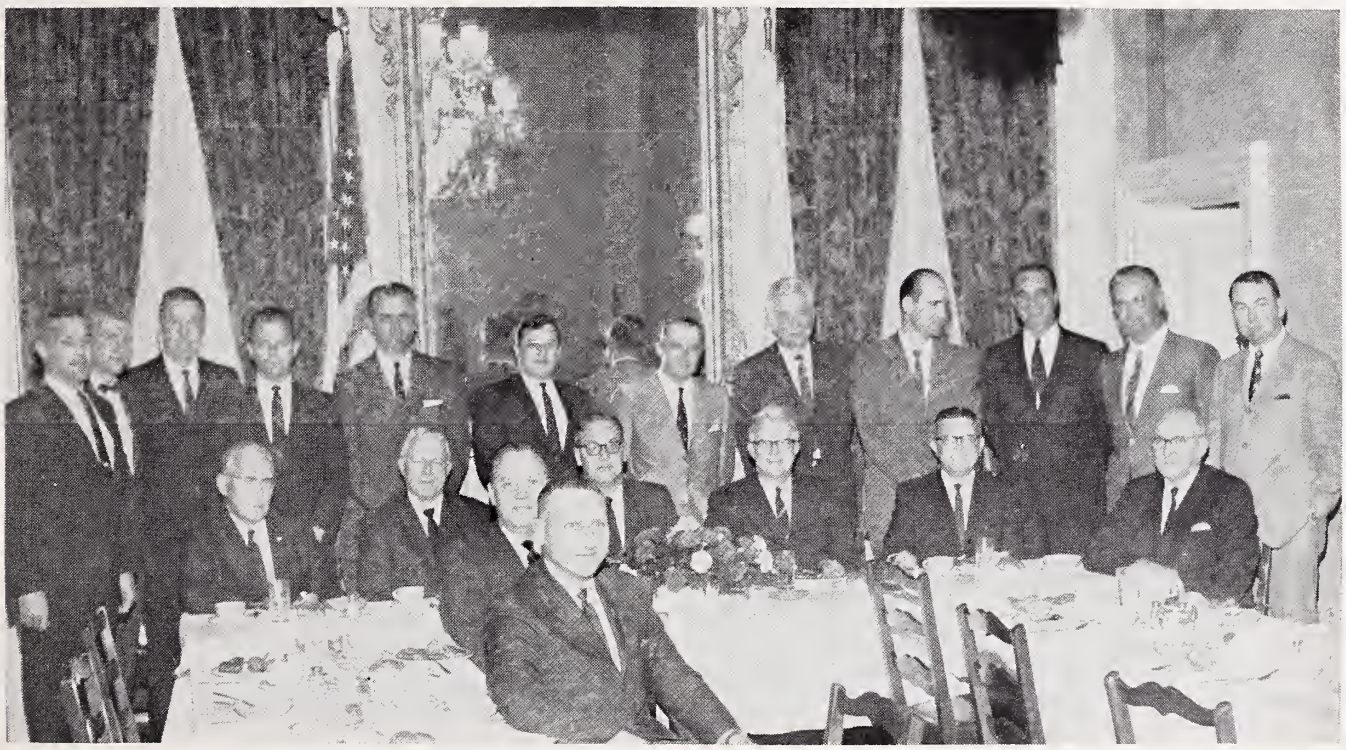
MAG DOCTORS MAKE IT NINE IN A ROW WITH THE GEORGIA CONGRESSIONAL DELEGATION



Left to Right (standing) Rep. Fletcher Thompson, 5th District; Bruce Newsom, M.D., Columbus; Rep. Jack Brinkley, 3rd District; Rep. Benj. Blackburn, 4th District; Hobson Rice, M.D., Decatur; Daniel Bateman, M.D., Albany; Ronald Ginn, Adm. Asst. to Sen. Herman Talmadge; Rep. Maston O'Neal, 2nd District; William Dowda, M.D., Atlanta; Rep. W. S. Stuckey, 8th District; Mack Simmons, M.D., St. Simons; Carson Burgstiner, M.D., Savannah. Left to Right (seated) T. A. Sappington, M.D., Thomaston; Rep. John Flynt, 6th District; Rep. John Davis, 7th District; Don Schmidt, M.D., Cedartown; J. Frank Walker, M.D., Atlanta; Rep. Robert Stephens, 10th District; Harry Pinson, M.D., Augusta; Charles R. Andrews, Canton. Arrived after photograph was made were Rep. Elliott Hagan, 1st District and Phil Landrum, 9th District.

The MAG group departed the Atlanta Airport for Washington on the evening preceding the day of the luncheon. The first stop for the group the following morning was the AMA Washington Office for a round of thorough briefings on matters of current significance in the Congress, both medical and non-medical. The balance of the morning was spent visiting in the offices of the Congressmen for frank and open discussion of medical legislation.

As in the past, each Congressional District in the State was represented by a physician who acted as personal host to his own Congressman. Legislative Committee Chairman, J. Frank Walker, M.D., gave a few brief remarks at the luncheon outlining the position of organized medicine on pending amendments to the Medicare Law and Title XIX.

The reception by the Georgia Congressmen was, as always, informative, friendly and productive and gave substance to the view expressed by Senator Russell last year that the MAG annual Congressional Luncheon had indeed become one of Washington's more pleasant institutions. By common agreement of all who attended, it remains our best Congressional PR endeavor.

Under the sponsorship of the MAG Legislative Committee, a group of Georgia physicians hosted the State's Congressional Delegation at an informal luncheon in Washington on May 25. It was the ninth such annual event.

The luncheon meeting, arranged for the fifth consecutive year through the good and effective offices of Congressman Robert G. Stephens of Athens, was held in the private dining room of the Speaker of the House of Representatives in the Nation's Capitol building. All members of Georgia's Delegation to the House were present notwithstanding that the House had been in continuous session from 12:00 noon until 3:00 a.m. the previous legislative day. Unfortunately, Senators Russell and Talmadge were both in Georgia and unable to attend.

VENEREAL DISEASE RATES AND STUDENT ATTITUDES

Ira E. Robinson *and* Francis J. Clune, Jr., *Athens*

■ A more effective educational program is urgently needed.

VENEREAL DISEASE rates fell from a high of 358.2 per 100,000 population in 1950 to a low of 197.8 per hundred thousand in 1958.[1] Since that time the rates have been steadily on the increase. During the last two years in particular, public awareness of the increased proportions of the problem has begun to be manifest. In 1965 the total venereal disease rate was 223.5 per 100,000 population.[1] This increase has been marked particularly by a drop in the age range wherein the contraction of the disease occurs. The most recent figures from the Department of Health of the State of Georgia, the state where the present study was conducted, show that over 50% of the reported cases were below the age of twenty-five, and even more disturbing, over 29% of the cases are below the age of twenty.[2]

Changing Code

With the apparently changing sexual code of the school age generation there has come an increase in the rate of venereal disease. As a consequence of these two changes in society and its problems, the present investigation as part of a larger study on sexual attitudes of college students attempted to determine the role that fear of venereal disease plays in preventing coitus.

There has been a general view that fear of venereal disease does prevent a certain proportion of people from engaging in sexual intercourse. Kinsey in the 1952 report on female sexual behavior reported that approximately 0.52% were kept from engaging in sexual intercourse because of fear of venereal disease.[3] In the present study only .2% of a population of 226 gave similar responses. In a re-analysis of the 1948 male data of Kinsey, Gagnon found that 22% of non-infected males reported that fear of venereal disease was a strong preventive of intercourse. In the present study only 13% of respondents reported similar fears. We find a considerable drop in the number who apparently find a fear of venereal disease as a reason for not engaging in sexual behavior. These differences are significant at the .02 level and consequently appear to show a real reduction in the awareness of venereal disease as a potential source of danger.

STRONG FEAR OF VENEREAL DISEASE AS REASON FOR NOT ENGAGING IN COITUS

	Gagnon[4]	Kinsey[3] N	Robinson et al.	N	Diff	P C D
Male (1948)[4] ..	22%	(387)	13%	(114)	3.1	.02
Female[5] (1952)[3]	5%	(5720)	2%	(111)	1.2	·02

The low degree of fear of venereal disease expressed by our respondents is part of a total patterning of responses to other attitudes on sexual behavior (which will be reported in another paper). While it is not our intention to deal with these questions, the patterns which emerged included particularly a reduction in the fear of public condemnation which historically played a major role in the reduction of sexual promiscuity. At least partly to contract venereal disease was to publicly expose oneself. The propaganda campaign which was conducted during the late 40's and 50's reduced both the fear of venereal disease and the fear of condemnation and consequently, the low percentage of fear of venereal disease for the women is also reflected in other attitudes about pre-marital sexual intercourse. These attitudes do not seem to have changed very much since Kinsey *et al.* reported on the human female. A crucial factor is the statement that they would only have premarital intercourse with a person with whom they are "in love." From other evidence they seem to mean a very strong emotional commitment to the individual, not a casual relationship. Even so,

From the Department of Sociology and Anthropology, University of Georgia, and State University of New York, Brockport College, New York.

what they actually are saying is that they do not believe that their "boyfriend" could be a contact for venereal disease. From case histories the promiscuous female is more dangerous than the male for the transmission of venereal disease. As a result of these factors, the lessening of awareness in the young of America indicates a grave probability of a rather sharp increase in venereal disease rates *unless* an educational program comparable to the program of the 1940's is instituted.

We would conclude, therefore, that public knowledge must be given to the recognition of symptoms at both the high school and college levels.

Summary

From 1958 up to the present, venereal disease rates have been increasing. At the same time the age range in which the disease occurs has been dropping. One of the reasons for the rise is the lessening of fear of venereal diseases. It appears that the VD rates will continue to rise unless a very strong educational program about venereal disease is instituted.

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ARE YOU A RETIRED PROFESSIONAL?

Out of approximately 19 million people in the United States today over 65 years of age, two million are retired professionals. Their talents, skills, knowledge and experience may be lost. This is a challenge. The first attempt to meet the need and avoid this tragic loss to our society has been undertaken by the Council on Gerontology of the University of Georgia at Athens. Dr. Robert P. Wray, Ed.D., is the Director. He recruited about 25 retired professionals for a meeting and discussion of this problem. A steering committee from this group arranged an agenda for a conference which was held December 6-7, 1966, at Athens, Georgia.

After two days of discussion by the 40 people attending the meeting, the consensus was that more conferences should be held in different locations of the state.

Broadening Perspectives

One of these meetings was held in Atlanta, May 8-9, 1967, and in White County and Cleveland, Georgia, in late May. More conferences will be forthcoming. These meetings broaden perspectives and allow suggestions to be made that will present the objectives desired.

There are many variables in this group of people, but the following present a few objectives in brief:

(1) To consider the problems retired professionals face as they actually are, rather than as they "dreamed." These are social, economic, physical and mental health, and community service.

(2) To consider activities that are open, how to get involved with actual jobs for pay, or in the volunteer field, and how to pursue individual desires.

(3) How, When and Where one might be able to bring person and job together.

(4) Some thought was given as to what could or would enable the retired person to update his or her knowledge and skills so as to apply them usefully to the years of retirement.

(5) To work with business executives in order that persons approaching retirement might be better informed as to the actual problems they will face.

Illustrations of Two Approaches

(A) Business and various enterprises are organizing a large pool of retired executives who may travel to foreign countries as advisors to people involved with either new or probable problems in business.

(B) Many retired executives in Atlanta have volunteered to the Small Business Administration as consultants.

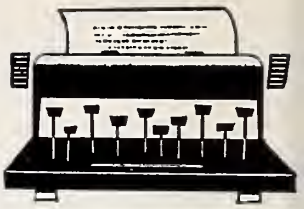
For further information write to: *Dr. Robert P. Wray, Council on Gerontology, University of Georgia, Athens, Georgia 30602; Dr. C. C. Aven, Route No. 2, Marietta, Georgia 30060, or Dr. Hugh Wood, 923 Castle Falls Drive, N.E., Atlanta, Georgia 30329.*

"THE MEDICAL UNITS 'PLANNING GUIDE'" AND "THE BUSINESS SIDE OF MEDICAL PRACTICE" AVAILABLE TO GEORGIA DOCTORS

For the fourth consecutive year, the Medical Association of Georgia is offering to the doctors of Georgia the American Medical Association-Sears, Roebuck Foundation, Inc. booklets entitled, "The Business Side of Medical Practice," and "The Medical Units 'Planning Guide.'" The material is free of charge and either or both may be obtained by writing to the *MAG Headquarters Office, 938 Peachtree St., N.E., Atlanta, Ga. 30309.*

Each booklet, constructed of heavy vellum stock, measures approximately 12″ × 9″ and contains charts, graphs, illustrations, floor plans, etc. Both are made for easy handling and make a nice addition to a doctor's office library.

EDITORIALS



Highest Venereal Disease Rates for United States and Georgia in Younger Age Groups

STATISTICAL DATA for the calendar years 1965 and 1966 show that the highest rates for Primary and Secondary Syphilis and Gonorrhea *(Infectious VD)* in the United States (Table I) and in Georgia (Table II) are in the age group 20-24 years and the next highest rates in both the United States and Georgia are in the age group 15-19 years.

In the United States the highest percentage increase in *Infectious VD* rates since 1957 has been in the age group 15-19 years. While Georgia's rates for the age group 15-19 years over this same period of time are a little higher than those for the United States (Tables I and II), they represent a marked decrease in *Infectious VD* in the age group 15-19 years.

Since 1957

For the first time since 1957, Primary and Secondary Syphilis cases in the United States for all age groups showed a 3.3% decrease from cases reported for 1965. Georgia has shown a steady decline in Primary and Secondary Syphilis cases for all age groups for the past three fiscal years: 10.8% decrease in 1965, 5.9% decrease in 1966 and 4.7% decrease for the first eleven months of 1967.

Statistical data for the United States (Table I) and for Georgia (Table II) show the breakdown in cases and in rates for white and non-white for all age groups. An average of 95% of the Primary and Secondary Syphilis cases and 87% of the Gonorrhea cases reported in Georgia for all age groups for the years 1965 and 1966 were in the non-white group. In the United States for the same years an average of 78% of the Primary and Secondary Syphilis cases and 72.3% of the Gonorrhea cases were in the non-white group. Approximately the same comparative rates between white and non-white cases and rates prevail in the age group 15-19 years.

In the Drop-Out Group

Contrary to popular belief and some publicity, very few of the *Infectious VD* cases reported in Georgia in the age group 15-19 years are found among teenagers who are in high school or college whether they be white or non-white. All but a handful of the cases in this age group are perennially found in the drop-out group.

The above statistics seem to indicate that the VD problem is closely related to the socio-economic status of our population. These statistics would also indicate that Georgia and some of her neighboring states are laboring in a most unfavorable VD control climate. We are at or near the top of all the states in factors conducive to VD.

Outstanding Program

For many years Georgia has been credited by the U. S. Public Health Service with having the outstanding VD Control Program of any of the states having a major VD control problem. For the past eight years every reported case of Primary and Secondary Syphilis has been interviewed for contacts and suspects and every reactive serologic test has been followed up for disposition with the physician submitting it. For the past several years all named sex contacts to Primary and Secondary Syphilis cases who were clinically and serologically negative upon initial examination have been given, unless contraindicated, epidemiologic (prophylactic) treatment. Traditionally, over the past several years better than 90% of all named sex contacts and suspects elicited from Primary and Secondary Syphilis cases have been brought to examination and treatment if indicated. As a result of our total VD control efforts in Georgia, the late complications of syphilis are seldom seen today and congenital syphilis has been practically eliminated.

The VD control effort in Georgia for many years has been a close partnership between public health and the private practitioners of the State—no state has had better private physician cooperation and participation.

The weakest link in our VD Control Program in Georgia has been lack of VD education in our schools. During the past year, tremendous strides have been made in this field. The General Assembly of Georgia, The Georgia Congress of Parents and

TABLE I
UNITED STATES
INFECTIOUS VENEREAL DISEASE MORBIDITY

A. TOTAL—ALL AGE GROUPS

Calendar Year	PRIMARY AND SECONDARY SYPHILIS Total Cases	Total Rate	White Cases	White Rate	Non-White Cases	Non-White Rate	GONORRHEA Total Cases	Total Rate	White Cases	White Rate	Non-White Cases	Non-White Rate
1965	23,338	12.2	5,169	3.1	18,169	79.3	324,925	169.3	89,878	53.2	235,047	1,026.0
1966	21,332	11.0	N.A.	N.A.	N.A.	N.A.	345,787	178.5	N.A.	N.A.	N.A.	N.A.

B. AGE GROUP 0-14 YEARS

Calendar Year	PRIMARY AND SECONDARY SYPHILIS Total Cases	Total Rate	% of Total	White Cases	White Rate	Non-White Cases	Non-White Rate	GONORRHEA Total Cases	Total Rate	% of Total	White Cases	White Rate	Non-White Cases	Non-White Rate
1965	281	0.5	1.2	15	0.0	266	3.0	4,525	7.6	1.4	1,039	2.0	3,486	39.2
1966	257	0.4	1.2	N.A.	N.A.	N.A.	N.A.	4,816	8.0	1.4	N.A.	N.A.	N.A.	N.A.

C. AGE GROUP 15-19 YEARS

Calendar Year	PRIMARY AND SECONDARY SYPHILIS Total Cases	Total Rate	% of Total	White Cases	White Rate	Non-White Cases	Non-White Rate	GONORRHEA Total Cases	Total Rate	% of Total	White Cases	White Rate	Non-White Cases	Non-White Rate
1965	4,039	24.2	17.4	534	3.7	3,505	164.5	66,947	400.8	19.6	16,293	111.8	50,654	2,377.0
1966	3,692	21.2	17.4	N.A.	N.A.	N.A.	N.A.	71,246	408.7	20.9	N.A.	N.A.	N.A.	N.A.

D. AGE GROUP 20-24 YEARS

Calendar Year	PRIMARY AND SECONDARY SYPHILIS Total Cases	Total Rate	% of Total	White Cases	White Rate	Non-White Cases	Non-White Rate	GONORRHEA Total Cases	Total Rate	% of Total	White Cases	White Rate	Non-White Cases	Non-White Rate
1965	6,575	52.5	28.2	1,272	11.6	5,303	343.9	114,945	918.5	35.4	32,025	291.9	82,920	5,377.4
1966	6,010	47.3	28.2	N.A.	N.A.	N.A.	N.A.	122,325	962.2	35.4	N.A.	N.A.	N.A.	N.A.

E. SUMMARY—PERCENTAGE OF INFECTIOUS SYPHILIS 24 YEARS OF AGE AND UNDER

Calendar Year	PRIMARY AND SECONDARY SYPHILIS Total %	White %	Non-White %	GONORRHEA Total %	White %	Non-White %
1965	46.7	35.2	49.9	57.4	54.9	58.3
1966	46.7	N.A.	N.A.	57.4	N.A.	N.A.

NOTES: Rates based on 1965 Estimated Population. Rates indicated are per 100,000 population. 1966 Calendar Year Breakdown by Race Not Available (N.A.).

TABLE II
GEORGIA
INFECTIOUS VENEREAL DISEASE MORBIDITY

A. TOTAL—ALL AGE GROUPS

Calendar Year	PRIMARY AND SECONDARY SYPHILIS Total Cases	Total Rate	White Cases	White Rate	Non-White Cases	Non-White Rate	GONORRHEA Total Cases	Total Rate	White Cases	White Rate	Non-White Cases	Non-White Rate
1965	1,055	24.3	56	1.8	999	76.6	11,381	261.6	1,407	46.2	9,974	764.3
1966	1,005	23.1	32	1.1	973	74.6	13,571	312.0	1,710	56.2	11,807	904.8

B. AGE GROUP 0-14 YEARS

Calendar Year	PRIMARY AND SECONDARY SYPHILIS Total Cases	Total Rate	% of Total	White Cases	White Rate	Non-White Cases	Non-White Rate	GONORRHEA Total Cases	Total Rate	% of Total	White Cases	White Rate	Non-White Cases	Non-White Rate
1965	23	1.6	2.2	0	0.0	23	4.5	164	11.5	1.4	23	2.5	141	27.5
1966	18	1.3	1.8	1	0.1	17	3.3	183	12.9	1.3	30	3.3	153	29.9

C. AGE GROUP 15-19 YEARS

Calendar Year	PRIMARY AND SECONDARY SYPHILIS Total Cases	Total Rate	% of Total	White Cases	White Rate	Non-White Cases	Non-White Rate	GONORRHEA Total Cases	Total Rate	% of Total	White Cases	White Rate	Non-White Cases	Non-White Rate
1965	249	58.9	23.6	6	2.1	243	173.6	2,771	655.1	24.3	233	82.3	2,538	1,812.9
1966	257	60.8	25.6	7	2.5	250	178.6	3,884	918.2	28.6	414	146.3	3,470	2,478.6

D. AGE GROUP 20-24 YEARS

Calendar Year	PRIMARY AND SECONDARY SYPHILIS Total Cases	Total Rate	% of Total	White Cases	White Rate	Non-White Cases	Non-White Rate	GONORRHEA Total Cases	Total Rate	% of Total	White Cases	White Rate	Non-White Cases	Non-White Rate
1965	314	101.9	29.8	12	5.5	302	339.3	3,896	1,264.9	34.2	470	214.6	3,426	3,849.4
1966	328	106.5	32.6	8	3.7	320	359.6	5,911	1,919.2	43.6	882	402.7	5,029	5,650.6

E. SUMMARY—PERCENTAGE OF INFECTIOUS SYPHILIS 24 YEARS OF AGE AND UNDER

Calendar Year	PRIMARY AND SECONDARY SYPHILIS Total %	White %	Non-White %	GONORRHEA Total %	White %	Non-White %
1965	55.5	32.1	56.9	60.0	51.6	61.2
1966	60.0	50.0	60.3	73.5	77.5	73.2

NOTES: Rates based on 1965 Estimated Population. Rates indicated are per 100,000 population.

Teachers, The Georgia Federation of Women's Clubs, and The Georgia Public Health Association have passed resolutions urging a stepped-up program in VD education in our schools. The Atlanta Alliance for the Eradication of Venereal Disease in concert with local, state and federal public health agencies and medical societies has conducted an outstanding VD education program in the greater Atlanta Area during 1967.

The inclusion of VD education in the school curriculum has also been endorsed by The American Medical Association and The National Congress of Parents and Teachers.

Regrettably, there has been no substantial increase in Federal VD Control Funds since 1961 while program costs—particularly personnel—have continued to increase. This has caused some retrenchment in VD control programs in Georgia and most other states which we can ill afford at this time.

The AMPAC Knack—and How to Get It!

Those who make it a practice to attend the annual Workshop Conferences of the American Medical Political Action Committee never cease to be amazed at the high quality and top talent that perennially goes into these meetings. The 1967 Conference was no exception and was different from previous Conferences primarily in the degree of political sophistication displayed by the program and those who attended.

The 1967 Conference was held in Washington, D.C., on June 2-4, 1967. It attracted a crowd estimated to be in excess of 400 physicians and physicians' wives representing every State in the Union including Hawaii and Alaska.

Who's Who in Politics

The Conference was a star-studded affair with a program that looked like a leaf out of *Who's Who* on the national political scene. Public personalities representing every shade of color on the political spectrum displayed their unique campaign techniques for the benefit of the AMPAC and State PAC members who had come to learn.

One of the highlights of the Workshop was a free-wheeling panel discussion by such Washington notables as Senators George Murphy of California and Walter Mondale of Minnesota, Congressmen Don Fuqua of Florida and Bob Wilson of California. The panel dug into just about every conceivable aspect of conducting a congressional campaign—fund raising, use of volunteers, women in politics, selection of issues, use of advertising media and in general covered the whole water front.

One of GaMAPC's own, Dr. John Heard of Decatur, delighted the conference with a candid and humorous accounting of the cliff-hanging victory of Fourth District Congressman Benjamin B. Blackburn and the significant contribution to that victory made by many of the physicians in the Fourth District.

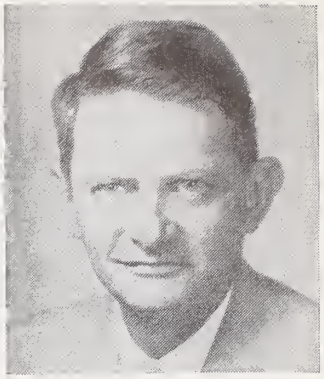
The Conference also heard from Congressman Gerald Ford (R-Mich.), the Minority Leader of the House of Representatives, syndicated political columnist Robert Novac, and for international flavor, the Vice Chairman of the Conservative and Unionist Party of Great Britain, Miss Susan Walker.

Many new tools and techniques of congressional campaigning were put on display including four new AMPAC produced films all of which are available to local PAC units who wish to improve their political IQ.

A Potent Political Force

Aside from the purely educational aspect of these conferences, which is, of course, the main objective, they denote the arrival of the medical profession as a potent political force capable of producing the margin of victory in many elections. What was once considered an emotional enigma of transitory potential has now become a vital part of the American political scene—capable, energetic, articulate and determined. It is just such conference workshops that have made it so.

PRESIDENT'S LETTER



DRUGS

ALMOST EVERY DAY now there is an article in the newspaper about drugs. There has not been a single article that did not seem directed toward undermining the public confidence in the drug manufacturers. Recently a big play was made of a survey from New York that stated Fulton County was paying several thousand percent more for a certain drug than New York. The truth appeared a few days later buried in the middle of another story. When the questionnaire arrived, Fulton County was not buying this particular drug at all, so in an attempt to answer the questionnaire, a phone call was made to a druggist and the retail price on prescription was entered. A personal phone call to Grady Hospital revealed they were buying the drug at the same price as New York.

Headline Making

Senator Russell B. Long is making headlines across the country demanding legislation to require the purchase of generic drugs. This statement implies that any drug purchased by a generic name is cheaper. The true situation is simple in that every drug has a generic and a trade name. Any company that holds patents and/or copyrights on a particular drug has these rights as a mechanism to repay the costs of research and other costs over and above the costs of production and marketing. Without this protection there would be very few new drugs or for that matter very little progress in any industry. Therefore, prices on drugs as any product could and should be controlled by competitive bidding.

Last week the Johnson Administration announced that it would decide within six months whether Medicare should expand to include prescription drugs for those over 65. Welfare Secretary John W. Gardner has appointed Dr. Phillip Lee as chairman of a task force to study how the elderly could be helped by the addition of prescription drugs.

The widespread attacks on cost and the appointment of special study committees are old familiar mechanisms that seem to indicate that Drugs have been tagged as the next expansion of Medicare.

John T. Mauldin, M.D.
President, Medical Association of Georgia

In managing tense, anxious patients here's one combination that makes sense: your understanding counsel and **Serax**®

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When prescribing, carefully observe dosage recommendations and appropriate precautions, especially as pertaining to the elderly (see Wyeth literature or PDR as well as "IN BRIEF" below).

IN BRIEF.

Contraindications: History of previous hypersensitivity to oxazepam. Oxazepam is not indicated in psychoses.

Precautions: Hypotensive reactions are rare, but use with caution where complications could ensue from a fall in blood pressure, especially in the elderly. Withdrawal symptoms upon discontinuation have been noted in some patients exhibiting drug dependence through chronic overdose. Carefully supervise dose and amounts prescribed, especially for patients prone to overdose; excessive, prolonged use in susceptible patients (alcoholics, ex-addicts, etc.) may result in dependence or habituation. Reduce dosage gradually after prolonged excessive dosage to avoid possible epileptiform seizures. Withdrawal symptoms following abrupt discontinuance are similar to those seen with barbiturates. Caution patients against driving or operating machinery until absence of drowsiness or dizziness is ascertained. Warn patients of possible reduction in alcohol tolerance. Safety for use in pregnancy has not been established.

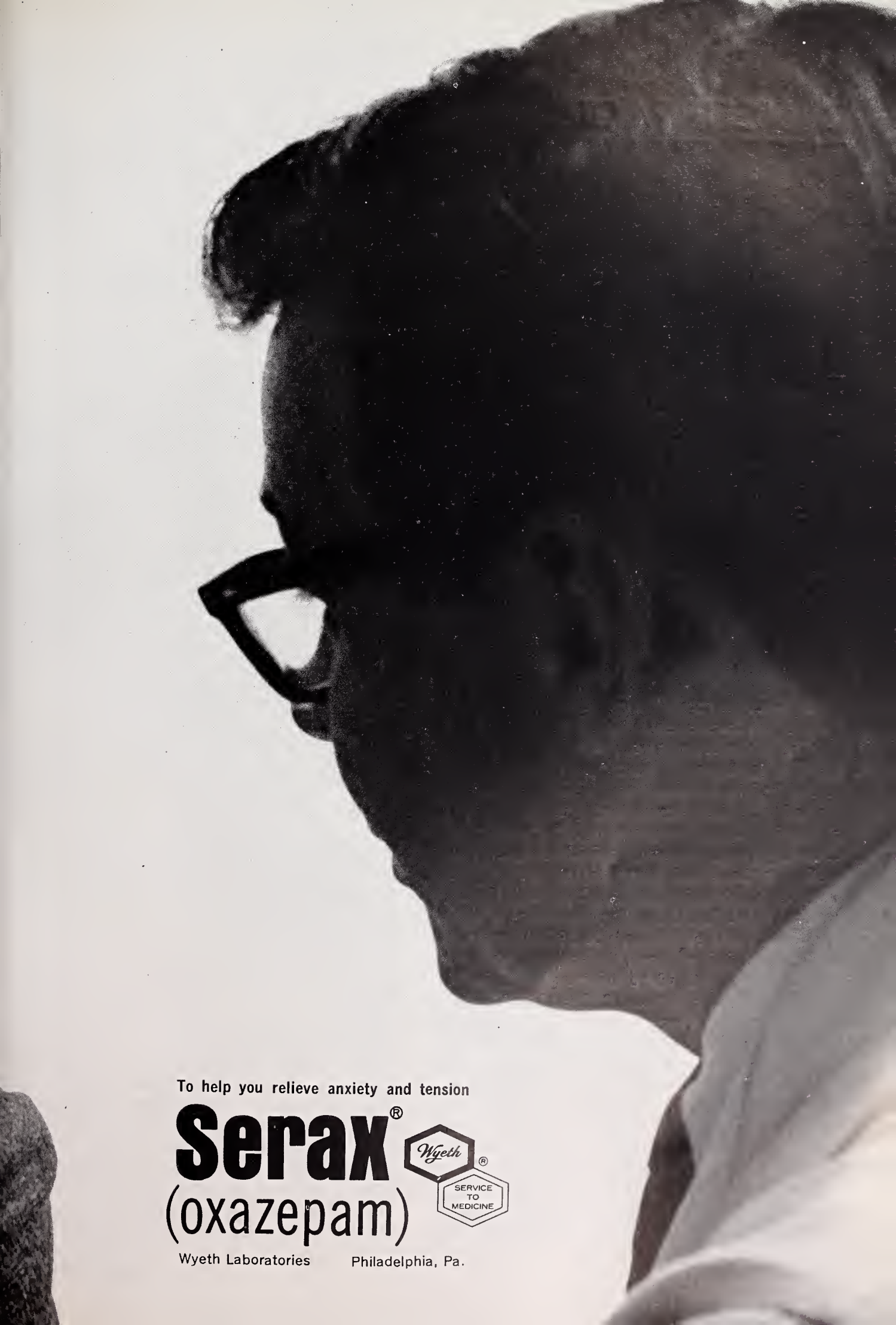
Not indicated in children under 6 years; absolute dosage for 6- to 12-year-olds not established.

Side Effects: Therapy-interrupting side effects are rare. Transient mild drowsiness is common initially; if persistent, reduce dosage. Dizziness, vertigo and headache have also occurred infrequently; syncope, rarely. Mild paradoxical reactions (excitement, stimulation of affect) are reported in psychiatric patients. Minor diffuse rashes (morbilliform, urticarial and maculopapular) are rare. Nausea, lethargy, edema, slurred speech, tremor and altered libido are rare and generally controllable by dosage reduction. Although rare, leucopenia and hepatic dysfunction including jaundice have been reported during therapy. Periodic blood counts and liver function tests are advised. Ataxia, reported rarely, does not appear related to dose or age.

These side reactions, noted with related compounds, are not yet reported: paradoxical excitation with severe rage reactions, hallucinations, menstrual irregularities, change in EEG pattern, blood dyscrasias (including agranulocytosis), blurred vision, diplopia, incontinence, stupor, disorientation, fever and euphoria.

Availability: Capsules of 10, 15 and 30 mg. oxazepam.

Photograph posed by professional models.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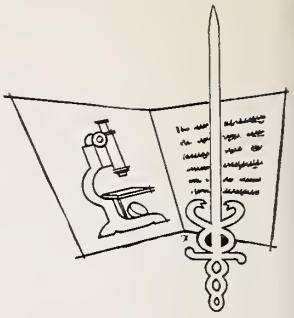
CANCER PAGE



STATEWIDE CERVICAL CANCER SCREENING PROGRAM

Morris E. Brackett, M.D., *Atlanta*

FOR MANY YEARS there has been an increasing concern among Georgia physicians about the need for a program of early detection of carcinoma of the cervix. Georgia statistics show that 2,383 women died of cancer in 1965. Two hundred and twenty-eight of these were diagnosed specifically as carcinoma of the cervix. An additional 362 were listed as due to carcinoma of the uterus. If we can assume that the incidence of carcinoma of the cervix is five times that of the corpus uteri, approximately 316 deaths due to carcinoma of the cervix occurred during this one year.

Three to Five Times as Frequent

Cancer of the cervix is three to five times as frequent in the lower socio-economic group of women who have frequent pregnancies starting at an early age. This is the patient that makes up the caseload of the local health department clinics. Educational methods alone have proven inadequate in this group of people in cancer programming. If one waits for clinical symptoms to attempt definitive diagnosis, the malignancy has already become invasive. Experience in the cancer control program of the Georgia Department of Public Health has been that when referrals have been made on the basis of clinical symptoms and physical findings alone, the malignancy has advanced to Stage III, where the five year survival is reduced to a rate of between 20% and 30%. Thus, by not having a cancer screening program using proven means of early cancer detection, the malignancy has advanced to the extent that the chances of curing the patients are drastically reduced, regardless of the amount of treatment and added cost. With a cancer screening program, cancer of the cervix can be detected before it becomes invasive. At this pre-invasive stage the cure rate, not merely the five year survival rate, approaches 100% with comparatively little treatment and cost. The need for early diagnosis is evident when it is realized that the end stage of this disease represents progression of a curable lesion.

In February of 1967, with approval of the State Board of Health, the Georgia Department of Public Health through the local health departments established a program of early detection of cancer of the cervix utilizing the screening methods of Papanicolaou. The plan was developed with the dedicated support of the Georgia Association of Public Health Physicians, Georgia Association of Pathologists, Georgia Obstetrical and Gynecological Society, Maternal and Infant Welfare Committee of the Medical Association of Georgia, the Georgia Division of the American Cancer Society, Georgia Chapter of the American Academy of General Practice and the Atlanta Obstetrical and Gynecological Society.

The basic operational plan of service is directed to the patient in the regular prenatal, postpartal and family planning clinic caseload of the local health departments. It is the consensus of opinion that this group of patients represents those most vulnerable to cervical cancer because of the socio-economic status, high rate of parity, shorter intervals between pregnancies, etc. In order to have proper medical supervision, the clinics must be under the direction of a physician licensed to practice medicine in Georgia. A combined specimen for interpretation is taken from the vaginal pool, the full squamo-columnar junction of the cervix, and from the endocervix. Physicians are urged to fix these specimens promptly to facilitate cytologic interpretation. Special care is taken in prenatal patients to prevent avoidable cervical bleeding and/or damage to the fetal membranes. At present, 26 pathologists over the state are cooperating in this screening program. Since there are many personal preferences as to methods of reporting cytologic interpretations, the basic five classes as established by Papanicolaou are used in this program for purposes of uniformity. Those with Class III or higher are referred to their private physician,

local community resources or to the cancer control service for diagnosis and definitive therapy as indicated.

This screening program is a good start in the prevention of morbidity and mortality in the women in Georgia; however, when additional funds become available, it is planned to implement an intensive program of patient education in cooperation with the physicians and appropriate lay groups. It is also planned, with availability of additional funds, to expand the screening service to eligible persons in the other health department programs.

This program has been well received by the physicians over the state; however, some local health departments which do not have this service available to them from other sources are unable to enter into the program because of lack of physician participation in the clinics. The need is there and a means to accomplish it is available. It is hoped that physicians will respond to their community effort.

Georgia Department of Public Health

Approved by the Professional Education Committee, Georgia Division, ACS.

HIGHLIGHTS OF THE ACTIONS OF MAG EXECUTIVE COMMITTEE MEETING JUNE 2, 1967

This summary is being published so that the MAG membership may be advised in brief of the actions of the Association's Council and Executive Committee. It covers only major actions and is not intended as a detailed report. Full minutes of these meetings are available upon any member's request to the MAG Headquarters Office.

MAG Future Annual Session program and planning was discussed by Annual Session Chairman Thomas Spitzer. General agreement was reached on following the 1967 pattern for the 1968 MAG Augusta Annual Session. Dr. Spitzer reported that he would meet with the Presidents of the Georgia Specialty Societies (including G.P.) in the near future to discuss the Augusta meeting and some innovations for future meetings.

Statewide Health Manpower Data Center was endorsed by Executive Committee pending approval from the State Board of Health Chairman. This data center, sponsored by the State Department of Public Health, would be the central repository for gathering statistical data on health manpower.

Military Medicare Contract Negotiation report by the MAG Review and Negotiation Committee was approved for presentation to MAG Council. The report recommended renewal of the ODMC-MAG contract on the basis of "usual, customary and prevailing" fees as is presently done under Social Security Medicare.

MAG Committee and Related Committee Appointments were suggested and approved for recommendation to MAG Council.

Veterans Administration Hometown Care program changes concerning the deleting of "physician paper work" in care and treatment of service connected disability patients was received for information.

Headquarters Office report concerned proposed revision of "MAG Employees Work Rules"; some MAG staff personnel changes; advisability of new Xerox equipment; and Field Service staff projects. MAG Executive Committee recommended that Council invite AMA to convene their 1972 Clinical Convention in Atlanta and that MAG Council take exception to a ruling of equipment purchase policy for the Regional Medical Program affecting "office partitions."

Georgia Regional Medical Program progress report was given by Program Coordinator J. W. Chambers. The report included data on the full-time staff of the program, plans of the June 4, 1967 Advisory Group Chairmen meeting, and clarification of fiscal policies which were approved by Executive Committee.

Date and Site of the next meeting of the Executive Committee of MAG Council was set for July 23, 1967, at 10:00 a.m., MAG Headquarters Office Building, Atlanta.

NEW MEMBERS OF THE MEDICAL ASSOCIATION OF GEORGIA

Bonvallet, James C. DE 2—Richmond	Talmadge Memorial Hospital Augusta, Georgia 30902
Cardoso, David Active—Baldwin	Milledgeville State Hospital Milledgeville, Georgia 31062
Davis, Joseph R. Active—Fulton	6701 Roswell Road, N.E. Atlanta, Georgia 30328
Fischer, Edward S. DE 4—DeKalb	614 Griffiss Street Warner Robins, Georgia 31093
Gross, Peter R. Active—Fulton	384 Peachtree Street, N.E. Atlanta, Georgia 30308
Hines, Robert C. Active—Floyd	24 Bale Street Rome, Georgia 30161
Kutner, Stephen S. DE 2—Fulton	80 Butler Street, S.E. Atlanta, Georgia 30303
Parham, Robert E. Active—Cobb	1422 Cherokee Street Marietta, Georgia 30062
Sanchez, Elio S. Active—Floyd	Battey State Hospital Rome, Georgia 30161
Seals, Roy L. Active—Cobb	120 Cherokee Street Smyrna, Georgia 30080
Smith, Carl A. DE 2—Fulton	80 Butler Street, S.E. Atlanta, Georgia 30303
Strickman, Bernard Active—Cobb	668 Cherokee Road Smyrna, Georgia 30080
Tatum, Joseph C. DE 2—Fulton	300 Boulevard, N.E. Atlanta, Georgia 30312
Watkins, W. Lorraine Active—Fulton	69 Butler Street, S.E. Atlanta, Georgia 30303

PHYSICAL ACTIVITY AND CORONARY HEART DISEASE

Curtis G. Hames, M.D., *Claxton*

DESPITE THE TREMENDOUS interest and research during the last 20 years, coronary heart disease (CHD) remains the prime cause of death in the United States today. This failure to discover an effective breakthrough relative to its cause and prevention has stimulated investigations of many different factors which have shown a correlation with the disease.

Physical Activity

One such strong correlation has been physical activity. The earliest known observation concerning the value of physical activity for preserving health was presented by Timaeus in the Dialogues of Plato. However, during the intervening 2300 years, few objective studies have been carried out, and our main evidence has come from epidemiological studies. The first large study to point out such a relationship was among London bus conductors and drivers by Morris, et al, in 1953. The rate of CHD among drivers was almost twice as high as among conductors. From this same study the death rate from CHD in the first three months following acute coronary thrombosis was twice as high in the least active postal workers as among the more active group. In Zukel's, et al, North Dakota study, myocardial infarction and death were only half as frequent among physically active farmers as in other groups. In the Evans County (Georgia) Cardiovascular Research Project, men in the most physically active occupations were found to have the lowest rate for CHD, while the least physically active group had the highest rate. Other studies have shown basically the same findings.

Mechanism of Relation Between Physical Activity and CHD

There is good experimental evidence that collateral revascularization is accelerated with exercise. It has been suggested that physical activity by increasing the energy expenditure can aid in the release of emotional or psychic stress. It might affect the blood clotting mechanism by accelerating fibrinolysis, alter favorably the sympathetic-parasympathetic balance, or improve myocardial efficiency and reserve.

Prescription of a Physical Activity Program

Any physical activity program should be preceded by a complete history, physical examination, and laboratory studies. The program should preferably be planned by a physician who has special training in exercise physiology. At the present time there is no concise pharmacopeia of physical activity for exercise prescriptions. There are, however, some general considerations. The exercise should not produce undue pain or distress, and it should not be undertaken too abruptly. Highly competitive game situations, effort against heavy resistance, and prolonged closure of the glottis should be avoided. The type of activity, depending on the person's health, can include walking, jogging, running, rope jumping, swimming, bicycling, rowing, and certain skills or sport activities. Beneficial effect cannot be obtained without some degree of increased demand on the pulmonary and cardiovascular systems. This is usually reached when the heart rate becomes elevated, increased shortness of breath develops, and a pleasant sense of muscular fatigue is appreciated afterwards. Exercise for no more than 20 minutes has been shown to produce a subjective and objective effect. This activity should be performed at least every other day.

The rationale for reducing the threat of CHD by increased physical activity has been presented. It has the added advantage of increasing the individual's feeling of well being, performance, and productivity. Even though the evidence that increased physical activity will significantly reduce CHD has not been proven, it is the only preventive approach now under consideration that has prompt and positive emotional and physical rewards.

Hames Clinic

Prepared at the request of the Committee on Professional Education of the Georgia Heart Association.

PARAMEDICAL STUDY COMMITTEE

The Paramedical Study Committee outlined a proposed course of action at the Medical Association of Georgia Leadership Conference in February.

Many of the proposals have been implemented in varying degrees.

Councilors in each district have been asked to form Paramedical Recruitment Committees, including members of the Woman's Auxiliary of the MAG, hospital administrators, hospital auxiliaries and other individuals and organizations interested in Allied Health Personnel.

A list of needs in the various personnel categories has been obtained, which indicates the serious shortage now recognized by most physicians.

The Kiwanis and Rotary Clubs have been contacted to obtain their assistance.

Exhibits have been shown at the recent annual Allied Health Careers Convention held at Rock Eagle Park.

Donations have been obtained from the following:

Medical Association of Georgia	$1500.00
Georgia Association of Pathologists	300.00
Georgia Radiological Society	200.00
Atlanta Society of Pathologists	200.00

Additional funds are being requested from various sources.

Eight or more programs have been shown on the Fulton County Educational Television Network, and one was shown June 6, 1967, on the Statewide Educational Television Network.

Plans are being formulated with Radio Station WSB to produce an intensive recruitment effort in the next several weeks.

Current recruitment literature of all paramedical areas and lists of available training facilities are being compiled for distribution. Many films have been obtained and others will be obtained for loan throughout the state. A list of all scholarships is being compiled.

Many other plans are being formulated and will be implemented in the near future.

It is evident that there is great interest on the part of the physicians, and particularly the Woman's Auxiliary of the MAG, in trying to solve the problems of supplying adequate numbers of health workers.

John T. Godwin, M.D., Chairman
MAG Paramedical Study Committee

AUDIO-DIGEST ISSUES NEW CATALOG OF TAPE RECORDINGS

A library of more than 300 one-hour tape recordings, devoted to comprehensive panel discussions and symposia on everyday office problems, has just been released to the medical profession by the Audio-Digest Foundation, Los Angeles.

According to the Foundation's Medical Board, the 1967 "Catalog of Classics" makes available to individual physicians, hospitals, and clinics, ideal Journal Club and teaching material in seven specialty areas: Anesthesiology, Obstetrics-Gynecology, Surgery, Pediatrics, Internal Medicine, Ophthalmology, and General Practice. A number of tapes also focus on the Basic Sciences, Cancer, Psychiatry, Gastroenterology, Cardiology, Arthritis, Geriatrics, and Hematology.

The recordings represent distillates of on-the-spot recordings from several hundred major meetings of such groups as the American Medical Association, American College of Physicians, American Society of Anesthesiologists, American College of Obstetricians and Gynecologists, as well as condensations of major university postgraduate courses.

According to the Medical Board, the selected recordings represent the latest and most authoritative reviews of modern-day diagnosis and treatment, in the actual voices of America's finest teachers and clinicians. This special library of titles represented the best of programs produced in the regular subscription programs of the Audio-Digest Foundation (a nonprofit subsidiary of the California Medical Association) during the past several years.

The Catalog of Classics is available free of charge and may be obtained by writing the *Audio-Digest Foundation at 619 S. Westlake Avenue, Los Angeles 90057.*

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*Chairman of Council—F. G. Eldridge, Valdosta (1968)
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Vice Speaker of the House—Harrison L. Rogers, Jr., Atlanta (1968)
Editor JMAG—Edgar Woody, Jr., Atlanta (1968)

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3—J. T. Christmas, Vienna (1970)
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7—Ralph N. Johnson, Rome (1968)
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J. Harold Harrison, Atlanta (1970)
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Georgia Medical Society Councilor
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Muscogee County Medical Society
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Roy L. Gibson, Columbus (1968)
Richmond County Medical Society
J. L. Mulherin, Augusta (1969)

* *Executive Committee.*

DELEGATES TO AMA

Delegate	*Term Ending*
J. W. Chambers, LaGrange	12-31-67
John S. Atwater, Atlanta	12-31-67
J. Frank Walker, Atlanta	12-31-68
Preston D. Ellington, Augusta	12-31-68

Alternate Delegate	*Term Ending*
Neal F. Yeomans, Waycross	12-31-67
Henry S. Jennings, Gainesville	12-31-67
John Kirk Train, Savannah	12-31-68
F. W. Dowda, Atlanta	12-31-68

DELEGATES TO AMA AS OF JANUARY 1, 1968

Delegate	*Term Ending*
J. W. Chambers, LaGrange	12-31-69
John S. Atwater, Atlanta	12-31-69
J. Frank Walker, Atlanta	12-31-68
Preston D. Ellington, Augusta	12-31-68

Alternate Delegate	*Term Ending*
Neal F. Yeomans, Waycross	12-31-69
Henry S. Jennings, Gainesville	12-31-69
John Kirk Train, Savannah	12-31-68
F. W. Dowda, Atlanta	12-31-68

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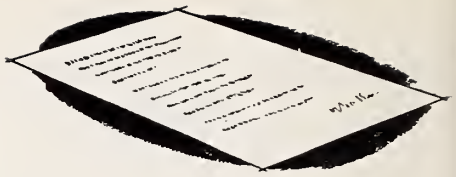

Mosley, James W., M.D.; Reinhardt, Herbert P., M.D., and Hassler, Frederick R., M.D., Communicable Disease Center, Public Health Service, Atlanta, Ga., and the Oklahoma State Dept. of Health, Oklahoma City, Okla,. "Chimpanzee-Associated Hepatitis, An Outbreak in Oklahoma," JAMA 199:695-697 (March6)1967.

On November 7, 1962, two newly imported chimpanzees were added to the primate collection of a University of Oklahoma psychologist. Between December 26, 1962, and January 17, 1963, there were three cases of icteric hepatitis and two cases of anicteric hepatitis among the six persons having close contact with the animals. These infections began to occur 103 and 68 days after the respective importations of the two animals, and 49 days after their arrival in the colony maintained by the psychologist. As in most other episodes, no illness recognizable as infectious hepatitis occurred in the animals. It is important for practitioners to recognize that the chimpanzee may be a source of infection for humans having contact with them. When cases begin to occur under such circumstances, it is just as important to administer immune globulin to contacts of suspected primates as to contacts of human cases.

Vogel, Robert A., M.D., Medical Research Division, VA Hospital, and the Dept. of Microbiology, Emory Univ. School of Medicine, Atlanta, Ga., "The Indirect Fluorescent Antibody Test for the Detection of Antibody in Human Cryptococcal Disease," The Journal of Infectious Diseases 116:573-590(December)1966.

The detection of antibody in cryptococcal disease was accomplished through the application of fluorescent antibody methods. Specific antibody was detected in the blood serum of approximately 80% of patients with laboratory diagnosed cryptococcal disease. Antibody was not detected in a majority of patients with concomitant lymphomatous diseases. Low titers were detected in 10% of normal individuals. The techniques enabled the laboratory to identify the serotype of the infecting organism and to follow the serum titer after treatment. A majority of the infections were caused by serotype A; during the course of the investigation a new serotype, designated R, was discovered. The titers of treated patients showed very little decline in the years following clinical recovery.

Upshaw, Charles B., Jr., M.D., Medical Arts Building, Atlanta, Ga. 30308, "The Valsalva Maneuver in Cardiovascular Diseases," Medical Annals of the District of Columbia 36:14-21(January)1967.

The Valsalva maneuver was described over 260 years ago by Valsalva but was popularized about 100 years ago by Weber. It may be employed usefully in many branches of medicine and often helps in diagnosis and in deciding therapy. An understanding of the pathophysiologic changes induced by the maneuver will enable the physician to use it more intelligently. It is simple and safe and may be used on most patients at the bedside or in the physician's office. A normal cardiovascular response is seen in patients with obesity, pregnancy, malingering anxiety, hypertension (without heart failure), and in heart disease (without heart failure). An abnormal cardiovascular response occurs in three types: The first type occurs in patients with pulmonary emphysema; the second type occurs in patients with heart failure, pericardial constriction, tight left-sided valvular stenosis, primary aldosteronism and autonomic nervous system alteration; a modified form occurs in patients with atrial septal defect. The third type occurs in patients with severe heart failure.

Jarrett, William H., M.D., Dept. of Ophthalmology, Emory Univ. School of Medicine, Atlanta, Ga., "Horner's Syndrome with Geniculate Zoster Occurring in Association with Trigeminal Herpes in Which the Ophthalmic Division Was Spared," American Journal of Ophthalmology 63:326-330(February)1967.

This is a case report of an instance of Herpes zoster involving the maxillary and mandibular branches of the right trigeminal nerve while sparing the ophthalmic division of the nerve. In addition to this unusual distribution in the area of the trigeminal nerve, the patient also exhibited otitic zoster, the so-called Ramsay Hunt syndrome with herpetic vesicles in the geniculate zone of the right ear. Lastly, the patient had Horner's syndrome on the affected side, the etiology of this being obscure. It was postulated that the Horner's resulted from inflammatory involvement of caroticotympanic fibers as they course in the middle ear while en route to the orbit.

Jennings, Erwin R., M.D. and Addison, Benjamin A., M.D., 2432 Parkwood Dr., Brunswick, Ga. 31520, "Collagen Sutures: Clinical and Experimental Comparison with Conventional Catgut," The American Surgeon 33:221-226(March)1967.

Purified beef tendon collagen sutures were evaluated in comparison to conventional catgut.

Twenty fascial closures in dogs and 50 fascial closures in clinical cases were done with both materials.

Microscopic and gross characteristics were essentially the same in the animals studied. The clinical series also showed no appreciable differences in the two materials.

It was felt that collagen sutures could be an effective replacement for standard catgut in the sizes studied.

Garrison, Glen E., M.D., Dept. of Community Medicine, Medical College of Georgia, Augusta, Ga., and Ader, O. L., M.D., Durham County Health Dept., Durham, N.C., "Sodium in Drinking Water," Environmental Health 13:551-553(November)1966.

Restriction of dietary sodium is frequently an important component of medical therapy. But inadequate attention has been given to the amount of sodium in water that is ingested.

The average concentration of sodium in water from 97 wells was 37 mg/liter (range:1-137 mg/liter).

On three occasions from each of 30 wells connected to water softeners, water was collected from the water line before the water had gone through the softener and also from the water line after the water had been through the softener. The average sodium concentration before the water went through the softener was 118 mg/liter, and the average values for the water supplies with the highest concentrations were 303, 305, and 527 mg/liter. The average sodium concentration in the 90 samples after the water had gone through the softener was 269 mg/liter, and 14 of these samples had sodium concentrations over 500 mg/liter with the highest one being 1000 mg/liter.

Naturally occurring well waters frequently contain concentrations of sodium that make them unsuitable for consumption by patients on sodium-restricted diets, and well water treated by a cationic exchange softener almost invariably contains too much sodium for these patients.

Nahmias, Andre J., M.D.; Josey, William E., M.D., and Zuher, M. Naib, M.D., Emory University School of Medicine and Grady Memorial Hospital, Atlanta, Ga., "Neonatal Herpes Simplex Infection, Role of Genital Infection in Mother as the Source of Virus in the Newborn," JAMA 199:164-168(January16)1967.

The source of infection with herpes simplex virus in the newborn infant has rarely been defined adequately. Maternal infection at or near the time of delivery has frequently been suggested. However, confirmation by actual viral recovery and the demonstration of a rise in antibody titer in the mother has only recently been recorded.

The importance of genital infection in the mother as a source of virus in the newborn was evidenced by the case of a newborn girl in whom a disseminated herpetic infection developed. Her mother was found to have a primary herpetic lesion of the cervix, grossly resembling invasive cervical carcinoma. Viral, cytological and serological studies confirmed herpetic infection in the mother and infant. From this and other cases which the authors have observed or reviewed from the literature, they have arrived at the following conclusion: that the greatest risk to the in-

fant of developing herpetic infection from his mother who has a genital infection is in the instance of the mother who has a primary infection very close to the time of delivery and has not had the time to develop antibodies which might be protective to the infant. In such a situation, Cesarean section should be considered, particularly if the membranes are still intact.

Nielson, Iver C., M.D.; Smith, Robert P., M.D.; McLaren, John R., M.D., and Scarborough, J. Elliott, M.D., Dept. of Surgery, Emory Univ. School of Medicine, Atlanta, Ga., "Carcinoma of the Uterine Cervix: A Study of 864 Patients," Cancer 20:86-92 (January)1967.

From 1937 through June 1964, 864 patients received primary therapy for cervix cancer at Emory University Hospital. Fifty-three patients with adenocarcinoma, 118 with in situ squamous cancer, and 693 with invasive squamous cancer have been studied with respect to age, stage of disease and mode of therapy employed. Where radiation was the treatment mode, patients were categorized according to dosage received. These factors then were correlated with survival. No correlation could be made with regard to age. The majority of patients treated were those with squamous cancer. The annual incidence of invasive squamous cancer declined progressively while that of in situ disease increased, not only when compared to all new tumors added to the registry but also where cervix cancer alone was considered. The annual incidence of stages I and II disease increased while that of the later stages III and IV decreased progressively during the period of the study. Among the small group of patients with adenocarcinoma the five-year survival was slightly lower than that for invasive squamous cancer. No patient with in situ squamous cancer has experienced recurrence or has died as a result of the disease. Among those with invasive squamous cancer, the over-all five-year survival was 68% while the more significant survival as determined by stage was 87%, 60%, 17% and 4% for stage I through IV disease respectively. The incidence of major complications of treatment was low (approximately 1%) while treatment failures as evidenced by local recurrence occurred in 16.8% of the total number of patients treated.

Kite, J. Hiram, M.D., 490 Peachtree St., N.E., Atlanta, Ga., "Congenital Metatarsus Varus," The Journal of Bone and Joint Surgery 49-A:388-397(March)1967.

Congenital metatarsus varus is a turning in of the forefoot in an infant. It might be called a "third of a clubfoot," because it presents one of the three deformities in a clubfoot. It is due to a muscle imbalance. The tibials adduct and invert the foot. The peronei do not pull the foot out in abduction. The deformity is not always present at birth. The deformity develops gradually as it does in poliomyelitis. The longer treatment is delayed, the more severe the deformity becomes and the longer time required to correct the deformity.

In addition to the forefoot adduction, there is a concavity along the medial border of the foot and a convexity on the lateral border with a bony prominence at the base of the fifth metatarsal. The great toe is separated from the second toe and dorsiflexed. When the heel is held the forefoot cannot be brought out in line with the heel.

The number of babies with this condition has increased in my practice from two to five a year during the thirties, to 50 a year during the forties, to 100 a year during the fifties, and now over 200 a year during the sixties. The cause is unknown.

The deformity cannot be corrected by exercises or shoes. It can be corrected only by casts, just as one would in correction of a true clubfoot. A statistical review was made of 2,818 patients corrected by casts.

Yeh, Thomas J., M.D.; Anabtawi, Isam N., M.D.; Cornett, Victor, M.D., and Ellison, Robert G., M.D., Dept. of Thoracic Surgery, Medical College of Georgia, Augusta, Ga., "Influence of Rhythm and Anticoagulation Upon the Incidence of Embolization Associated with Starr-Edwards Prostheses," Circulation 35:I-77-I-81(April)1967.

The incidence of embolism following aortic and mitral valve replacement with Starr-Edwards prostheses has been analyzed and correlated with cardiac rhythm and anticoagulation. No embolism occurred in the aortic valve replacement group, regardless of use or nonuse of Coumadin. In the mitral group, the incidence of embolism during atrial fibrillation was approximately 1.7 times that during sinus rhythm. Coumadin prophylaxis was extremely effective. The incidence during nonanticoagulation was 40 times that during adequate anticoagulation, and seven times that during inadequate anticoagulation. Embolism occurred as late as 21 months after surgery, often shortly after termination of anticoagulation. Three of the four patients with emboli associated with bacterial endocarditis died. All nine patients with emboli not associated with infection survived, half without permanent sequelae.

Greenblatt, Robert B., M.D., Dept. of Endocrinology, Medical College of Georgia, Augusta, Ga., "One-Pill-a-Month Contraceptive," Fertility and Sterility 18:207-211 (March-April)1967.

The rationale was to employ an oral estrogen with protracted action. If this effect would carry over from one month to the next the ovulatory process might be suppressed or modified. An oral progestogen added to the estrogen would induce a withdrawal period within a few days so that the cyclic pattern of menstruation would not be disturbed. If the progestogen did not cause rapid desquamation of the endometrium, prolonged bleeding might result. The ideal combination would be a long acting estrogen with a potent rapidly acting progestogen.

Forty women, all in their reproductive years, received 138 trials of the one day regimen for periods ranging from two to 12 months. The first dose was usually administered between day 21 of the cycle and the onset of menses. The long-acting oral estrogen, the 3-cyclopentyl ether of ethinyl estradiol in doses varying from 2 to 5 mg. was used in combination with a progestogen. Basal body temperature records, endometrial biopsies and cervical mucus were employed to determine the occurrence of ovulation. Day 25 was found to be most suitable for administration of the estrogen and progestogen. Withdrawal bleeding, as a rule, occurred after 72 hours or more. If given on day one of the cycle the menstrual period was apt to be prolonged. Ovulation was inhibited in 78 of the 138 trials; occurred in 32 and information was inadequate in 28. No pregnancies occurred in this series.

Symbas, P. N., M.D.; Schlant, R. C., M.D.; Hatcher, C. R., Jr., M.D., and Lindsay, J., M.D., Depts. of Medicine and Surgery, Emory Univ. School of Medicine, Atlanta, Ga., "Congenital Fistula of Right Coronary Artery to Right Ventricle Complicated by Actinobacillus Actinomycetemcomitans Endarteritis," Journal of Thoracic and Cardiovascular Surgery 53:379-384(March)1967.

H. A. W. 21-year-old Negro male at three months of age was noted to have cardiomegaly and to-and-fro murmur. He remained asymptomatic until February, 1965 when he was admitted with short history of ankle swelling and skin rash. On physical examination he was found to have biventricular enlargement, ventricular and atrial gallop and 3/6 continuous murmur. In seven out of 11 blood cultures grew actinobacillus actinomycetes comitans. He was treated with penicillin and streptomycin for five weeks. Right heart catherization indicated left-to-right shunt with pulmonary flow 20 L/min and systemic 9 L/min. Ascending aortogram demonstrated a massively dilated right coronary artery communicating with right ventricle.

In August, 1965 he was readmitted asymptomatic and with some physical findings for elective closure of the fistula. With the cardiopulmonary bypass standing by, the chest was opened and a massively dilated right coronary artery entering posteriorly and inferiorly into the right ventricle was found. A tourniquet was passed around the coronary artery proximally to the fistula and test occlusion was performed with constant EKG monitoring. Shortly after occlusion, progressive ST segment changes occurred. These findings indicated that surgical therapy consisting purely of ligation of the right coronary artery proximally to the fistula would have likely produced myocardial ischemia and possibly infarction. Attempts were made to close the fistula with lateral arteriorrhaphy but because of the marked cardiomegaly and location of the fistula, this did not prove to be feasible. Any vigorous manipulation of the heart resulted in extrasystoles and marked tachycardia. Accordingly the patient was placed on total bypass, right coronary arteriotomy was performed over the fistulous opening and the fistula was closed with continuous suture as was the arteriotomy preserving the distal blood flow of the right coronary artery. The patient since then has done very well with no residual continuous murmur.

1967-68
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Georgia Heart Association
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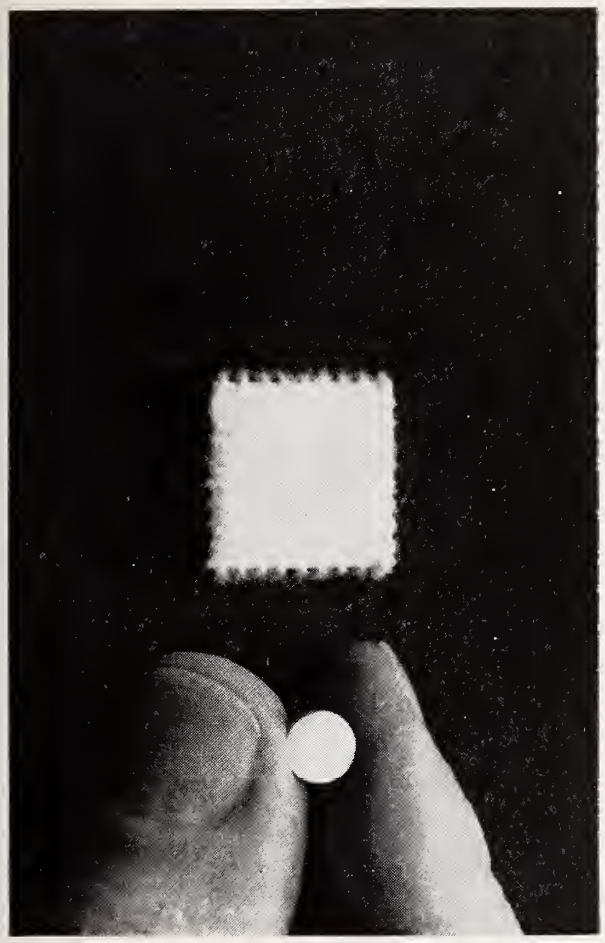

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Harvey Newman, M.D., 1116 So. Enota Dr., Gainesville 30501, Secretary

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DEATHS

W. Lynn Hicks, who practiced in Macon for 12 years, died May 18, 1967, at the home of his parents, Dr. and Mrs. Thomas J. Hicks, in Copperhill, Tenn. He had been in ill health for several years.

Dr. Hicks was reared in Copperhill. He served in World War II and was the recipient of the Purple Heart and the Croix de Guerre. He graduated from Emory University in 1948 and from the Georgia Medical College in 1952. He was a member of the Kappa Alpha Order and the Alpha Kappa Kappa medical fraternity.

Dr. Hicks was a member of the Bibb County Medical Society, the Medical Association of Georgia and the American Medical Association.

Besides his parents, Dr. Hicks is survived by his son, Walter Lynn Hicks, Jr.; his daughters, Debra and Tamsen Hicks, all of Macon; a brother, Dr. Thomas J. Hicks, Jr., of Atlanta; and a sister, Mrs. Reid L. Brown of Chattanooga, Tenn.

J. T. Holt, 80, died in the Appling General Hospital in Baxley April 28, 1967. The native of Wilcox County had lived in Baxley for the past 43 years and was a member of the Baxley First Baptist Church.

Dr. Holt was graduated from the Atlanta School of Medicine in 1912. He was a charter member and Past President of the Baxley Kiwanis Club and had served two terms in the Georgia State Legislature, three terms as State Senator of Appling County, two terms as Mayor of Baxley, and was former Chairman of the Appling County Board of Health.

Survivors include his wife, Mrs. Mittie M. Holt of Baxley; a son, J. T. Holt, Jr., of Fernandina Beach, Fla.; two daughters, Mrs. F. A. Whitaker of Baxley and Mrs. W. H. Fisher of Hazelhurst.

Charles Sterling Jernigan, 93, of Sparta, died May 15, 1967, in Atlanta after a long illness. He had practiced medicine in Hancock County for more than 60 years and was named General Practitioner of the Year in 1956 by the Medical Association of Georgia. He retired in 1962.

Born in White Plains, Ga., he attended Georgia Military College and received his medical degree from the University of Maryland in 1897.

He is survived by his son, Dr. Sterling H. Jernigan of Atlanta; his daughter, Mrs. Walter Dowling of Savannah; and a brother, Paul E. Jernigan of Sparta.

David Henry Poer, 67, a practicing surgeon in Atlanta since 1932, drowned June 14, 1967 in the swimming pool of his home.

Dr. Poer, a native of Jesup, Georgia, was a graduate of both Emory University and the Emory University Medical School. He received further training at the Cincinnati (Ohio) General Hospital.

He served in World War II as a colonel in the Army Medical Corps and remained a consultant-surgeon for the Army.

He was a Past President of the Southern Surgeons Club, Vice President of the American College of Surgeons, and Secretary of the Medical Association of Georgia.

He was a member of the First Presbyterian Church.

He was also a member of the Brookwood Rotary Club.

He is survived by his wife, Margaret Underwood Poer; a son, David Henry Poer, Jr.; three daughters, Miss Florence McLauren Poer and Mrs. Ivan Allen, III, all of Atlanta, and Mrs. Samuel Hale Sibley, II, Augusta; and a sister, Mrs. Charles C. Hinton, Macon.

Albert Amis Rayle, Sr., died May 12, 1967. For many years he made his home in Atlanta, serving first on the staffs of the Albert Steiner Clinic and Grady Memorial Hospital before going into private practice in radiology. He retired in 1965 because of illness.

Born in Oglethorpe County, Dr. Rayle received his A.B. degree from Mercer College, the M.A. from the University of Georgia, and was graduated from the College of Physicians and Surgeons, Columbia University, in 1916. Following service in World War I, he was on the staff of the Athens General Hospital.

Dr. Rayle was a member of the American Medical Association, American Roentgen Ray Society, Medical Association of Georgia and the Fulton County Medical Society. He served as a member of the Workmen's Compensation Medical Board under several governors.

Surviving are his wife, the former May Singleton of Atlanta; his daughter, Mrs. James B. Sidbury of Durham, N.C.; and his son, Dr. Albert A. Rayle, Jr., of Atlanta.

Randolph Smith, 75, an Atlanta orthopedic surgeon for 44 years, died June 1, 1967, at his home.

A native of Brooklyn, New York, and a 1920 graduate of Cornell Medical School, he was a resident surgeon at Grady Memorial Hospital in 1921-22 before entering private practice in the Atlanta area.

Dr. Smith had served Emory University and DeKalb County hospitals. He was a member of the Fulton and DeKalb County Medical Societies; Atlanta and Georgia Orthopedic Societies; and the SAE fraternity.

He is survived by his wife, the former Jean Douglas, and two sons, Randolph Smith, Jr., and Dr. Douglas Smith, both of Atlanta.

Charles Bell Upshaw, 76, an Atlanta obstetrician and gynecologist for 50 years, died May 10, 1967, in Crawford Long Hospital in Atlanta.

Born in Bartow County, Dr. Upshaw was a graduate of Young Harris College and Emory University Medical School. For 45 years he served as a clinical professor of obstetrics and gynecology at Emory Medical School.

He was a member of Fulton County Medical Society, the Medical Association of Georgia, the American Medical Association and the Southeastern Society of Obstetrics and Gynecology. He served as a diplomate and examining member of the American Board of Ob-

stetrics and Gynecology. He was also a board member of the Atlanta Florence Crittenden Home, Piedmont Hospital and Young Harris College at the time of his death.

Survivors include his wife, the former Belle LeRoy; a son, Dr. Charles B. Upshaw, Jr., and a daughter, Mrs. Mary Pike, all of Atlanta.

Peter Burum Wright, former Professor of Orthopedic Surgery at the Medical College of Georgia and former Chief of Orthopedic Surgery at University Hospital, died May 14, 1967, in Savannah. He was a resident of Winter Park, Florida.

Dr. Wright served as president of the Medical Association of Georgia in 1954.

He is survived by his wife, Mrs. Elizabeth McCrary Wright, Winter Park; a daughter, Mrs. Charles Weeks, Greenville, S.C.; a son, Peter B. Wright, Jr., Tallahassee, Fla.; a step-daughter, Mrs. William M. Kunkel, Harrisburg, Pa.; and two step-sons, William L. Lee, Winter Park, and J. B. Lee, Jr., Augusta.

SOCIETIES

The **Muscogee County Medical Society** heard Columbus lawyer, S. Ed Kelly, speak on "Malpractice as Concerns the Medical Profession" on May 24. Mr. Kelly said that a doctor cannot guarantee the result of his efforts and cannot be legally responsible for a mistake in judgement providing he exercises skill and care in reaching a judgement.

PERSONALS

Jack Hughston, Columbus, orthopaedic surgeon and orthopaedic consultant to Auburn University, Auburn, Alabama, and **Fred L. Allman, Jr.,** orthopaedic consultant, University of Georgia, will be lecturers at a special postgraduate course of the American Academy of Orthopaedic Surgeons, August 14-16, in Oklahoma City, Oklahoma. Dr. Hughston is Chairman of the American Academy of Orthopaedic Surgeons' Committee on Sports Medicine and Dr. Allman is President-Elect, American College of Sports Medicine.

First District

H. D. Youmans, who is retiring after many years service from active participation in the Maternal and Child Health Clinics of the Toombs County Health Department, was honored May 19 at the Health Center. He was presented with two silver mementos from the staff of the Health Center and his great-granddaughter unveiled a portrait of Dr. Youmans which will hang in the Health Center.

Charles G. Green of Waynesboro has been elected President of the Alumni Association of the Medical College of Georgia. He was installed April 30 and will serve one year.

Jules Victor, Jr., Immediate Past President of the Georgia Medical Society, was honored at the annual President's Dinner in Savannah on May 9. Joseph Killorin, Dean of Armstrong State College, was the speaker.

Third District

D. E. Nathan, Fort Valley, who is a Flight Surgeon Colonel in the Air Force Reserves, attended the Aerospace Medical Association Meeting held recently in Washington, D.C. He is a member of the Air Force Reserve Forces Medical Advisory Council to the Surgeon General, United States Air Force, and has a mobilization assignment of Special Assistant to the Surgeon, Continental Air Command, Robins AFB. Dr. Nathan has also been elected to active membership in the American Academy of General Practice.

Robert Pendergrass, Americus radiologist, spoke to the Dawson Rotary Club on April 26 on the occasion of Southern Memorial Day. A noted researcher, Dr. Pendergrass spoke on the heavy death toll of Union soldiers at Andersonville in 1864 and attributed this loss to the refusal of the Union to exchange soldiers.

Fourth District

James F. Green, Villa Rica, has been elected to active membership in the American Academy of General Practice.

Sam T. Gibson, a native of Covington, has been appointed Assistant Director, Division of Biologics Standards, National Institute of Health, Washington, D.C. He is Assistant Clinical Professor of Medicine at the George Washington University Medical School.

Fifth District

Bruce Logue, Atlanta, recently addressed the annual meeting of the South Carolina Heart Association at Hilton Head, South Carolina.

Alfred King Schoenbucher, a native New Yorker and recently retired Colonel, United States Army, has been appointed obstetrical consultant on the staff of the Maternal and Child Health Service, State Health Department in Atlanta.

John Venable, Atlanta, director of the State Health Department, attended a meeting of the World Health Organization in Geneva in early June. He said discussion there centered on the problem of eradicating malaria and smallpox.

Joseph A. Wilber, a practicing Atlanta physician and clinical assistant professor in medicine at Emory University School of Medicine, was appointed director of the State Health Department's Cardiovascular Disease Control Service on May 1.

John T. Godwin, director of Laboratories of St. Joseph's Infirmary in Atlanta, has been notified that a film entitled "Method of Rapid Electrophoresis," prepared in conjunction with the U.S. Public Health Service Audiovisual Facility, National Communicable Center, has been awarded a "blue ribbon" at the American Film Festival sponsored by the Educational Film Library Association in New York City. Another film entitled "Rapid Frozen Section Technic" won a bronze medal at a previous festival, the International Film and T.V. Festival, also held in New York.

Douglas B. Kendrick, formerly commanding general of Walter Reed Army Hospital, has been named professor of surgery in Emory University's medical school.

James T. King, Atlanta, was guest speaker at the 50th Anniversary of the Indiana Academy of Ophthalmology and Otolaryngology held in Indianapolis May 11-13. Following this meeting, he attended the meetings of the American Laryngological Association, The American Otological Society and the Triological Society at the Seigniory Club in Canada.

Sixth District

Charles T. Rumble, a Macon pediatrician for 20 years, has been appointed medical director of Macon Hospital.

Seventh District

W. Ronald Tipton, Dalton, has been elected to Fellowship in the American Academy of Pediatrics at its recent spring meeting in San Francisco.

Eighth District

E. Adams Daneman, Waycross, spoke to the Arkansas Medical Society and the Arkansas Academy of General Practice recently at Hot Springs. A psychiatrist, Dr. Daneman spoke on "Reaction and Therapy of Depressive Reactions."

Edwin A. Mayo, Brunswick, has been elected to active membership in the American Academy of General Practice.

Tenth District

The Medical College of Georgia Foundation, Inc., held their annual meeting recently in Atlanta. The new slate of Trustees are: **Dr. Irving Victor,** Savannah, President; **Dr. John H. Deaton,** Columbus, Vice President; **Dr. Robert T. Anderson,** Dublin, Secretary-Treasurer. Also serving on the Board of Trustees are **Dr. Billy S. Hardman,** Gainesville, and **Dr. J. G. McDaniel,** Atlanta.

The establishment of a Department of Dermatology at the Medical College of Georgia School of Medicine is announced by **Dr. Walter G. Rice,** Dean. **Dr. J. Graham Smith,** formerly Professor of Dermatology at Duke University, is the new Chairman.

George F. McInnes, a teaching surgeon who has served hospitals in Vietnam and Thailand, was honored recently by the Augusta Bar Association. Dr. McInnes, assistant clinical professor of surgery at the Medical College of Georgia, served the United Presbyterian Church in Thailand for five months in 1960 as a surgical consultant and for six months last year, he directed surgery efforts of volunteer doctors in Vietnam.

Jack Roles Palmer of Athens has been elected to membership in the American Academy of General Practice.

TELETYPEWRITER SERVICE FOR INTERLIBRARY LOAN REQUESTS AND INTERLIBRARY COMMUNICATION INSTALLED AT EMORY MEDICAL LIBRARY

The A. W. Calhoun Medical Library has acquired a teletypewriter (TWX) and joined other medical libraries with similar equipment to form a network in order to speed interlibrary loan requests and to facilitate interlibrary communication. Cooperating libraries have agreed to forward books or journal articles requested via TWX within 24 hours and to fill periodical requests whenever possible by photocopies for which no charge will be made to other libraries of the cooperating group. The National Library of Medicine gives priority to TWX requests; such requests are usually filled in about half the time required to fill conventional interlibrary loan form requests.

Some of the members of the cooperating group are:
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AMERICAN MEDICAL ASSOCIATION TO SPONSOR NINTH NATIONAL CONFERENCE ON THE MEDICAL ASPECTS OF SPORTS

The Ninth National Conference on the Medical Aspects of Sports, sponsored by the American Medical Association under the auspices of its Committee on the Medical Aspects of Sports, will be held in Houston, Texas, at the Hotel America on November 26, 1967. The Conference is held annually in conjunction with and on the first day of the Clinical Convention of the American Medical Association.

Wide Range of Subjects

As was true of the previous eight Conferences, the Ninth will cover a wide range of subjects of interest to those serving school and college athletic programs. Included will be forums and discussion sections relating to prevention of knee injuries, sports cardiology and quackery in sports. Two sessions will be devoted to a series of common clinical conditions of rather variable significance in the athletic setting (e.g., gastroenteritis, concussions, genitourinary tract injuries, and rib injuries). At the Conference Luncheon, Eduardo Hay, M.D., Director General of the Centro Deportivo Olimpico Mexicano, will discuss the preparations for the 1968 Olympic Games.

The Conference is open to key nonmedical athletic personnel as well as interested physicians.

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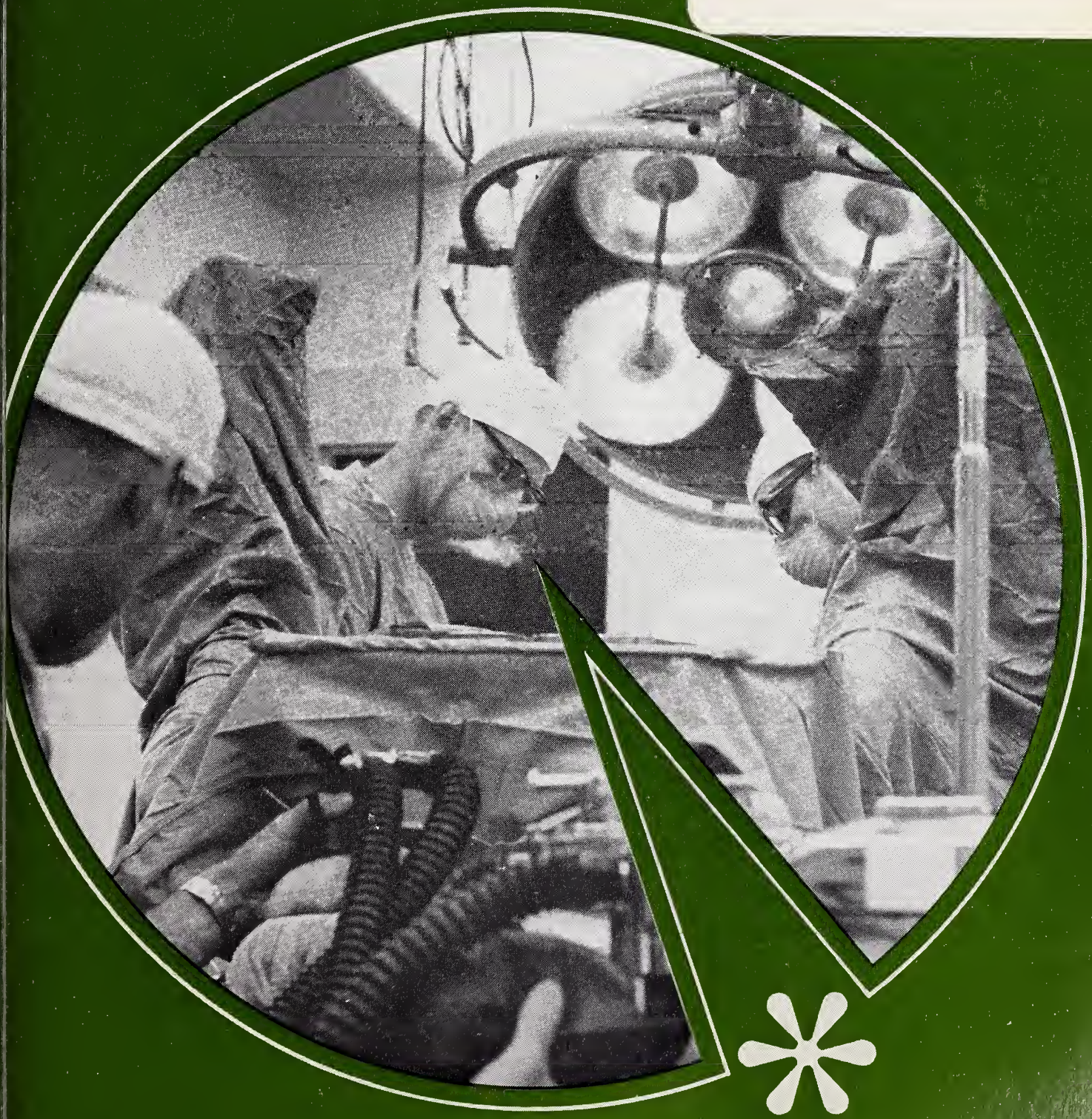

Therapeutic Abortion...

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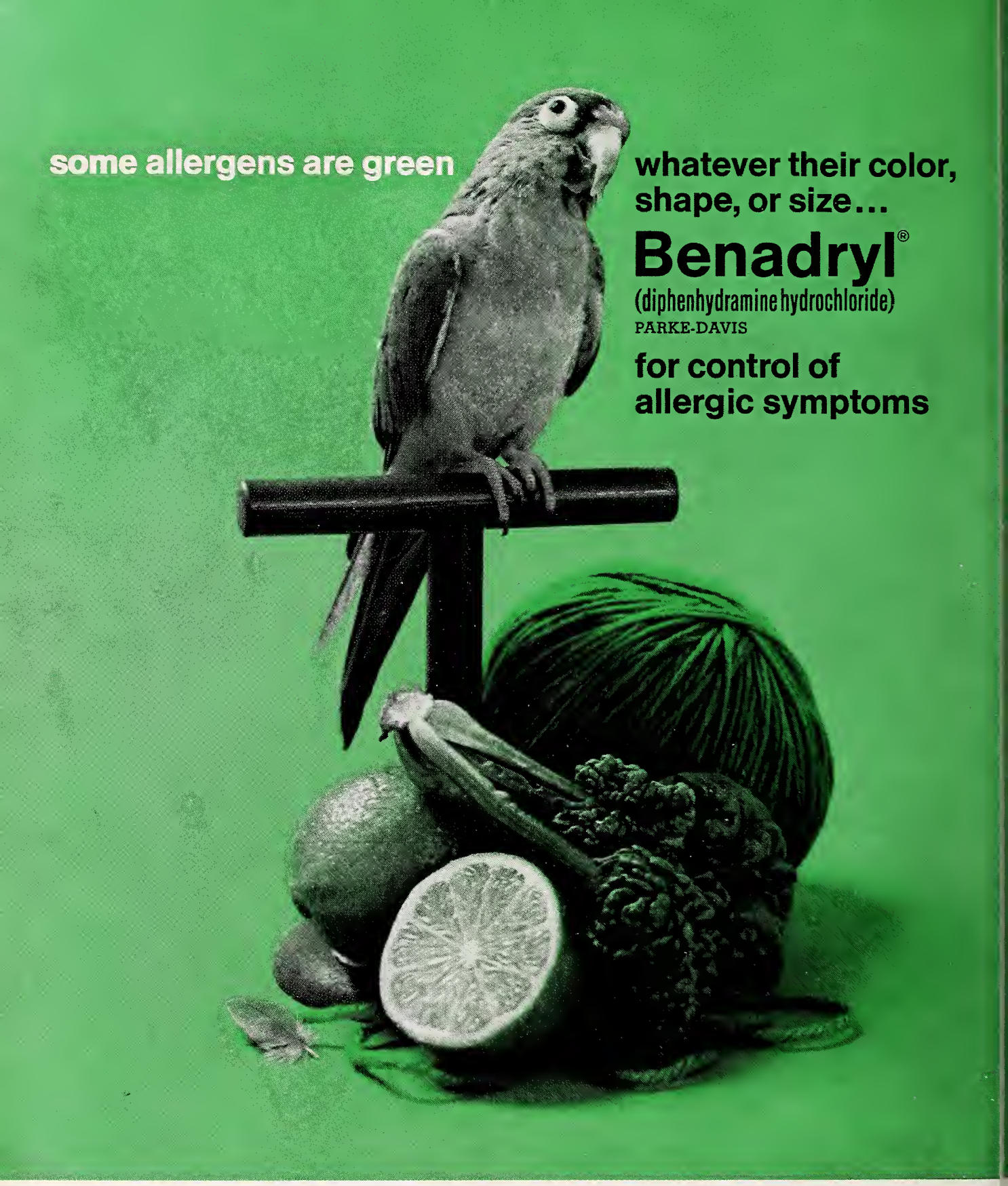

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INFLAMMATION: A cellular fight for life

A SYNTEX REPORT based on recently developed hypotheses about topical corticosteroids, including the cellular theories of inflammation by Thomas F. Dougherty, Ph.D., University of Utah.

You are looking at a fibroblast fighting for life. This cell—one of the most common found in connective tissue—has literally been poisoned by cytotoxins released from other cells that have ruptured. Soon, if the abnormal activity of this fibroblast does not cease, it, too, will rupture and die—one more casualty in the inflammatory wave of destruction precipitated by injury.

Until a short time ago no one had ever witnessed such a scene at the cellular level. Now, through advanced cinemicrographic techniques, it is possible to view and photograph the inflammatory process as produced experimentally in living animal tissue. This method permits new insight into the mechanism of inflammation and the role of corticosteroids in therapeutic management. Equally important, these techniques shed new light on factors that may make one corticosteroid more effective than another—factors that can be correlated with other chemical, biologic, and clinical parameters.

JOURNAL OF THE MEDICAL ASSOCIATION Georgia

Current Clinical Concepts

THROMBOSIS IN THE PATHOGENESIS OF ATHEROSCLEROSIS

A. B. Chandler, M.D., *Augusta*

ATHEROSCLEROSIS IS A DISEASE of arteries characterized by lesions that are local and segmental. It is not a generalized disease. However, lesions may be widespread and they may coalesce. Although the lesions all first involve the intima, they are not all alike. As the name implies, lesions may be atheromatous and contain much lipid or they may be sclerotic scars composed largely of fibrous tissue and little lipid. Many forms exist between these two extremes, all in the same case or even in the same artery. Any consideration of the pathogenesis of this disease must take into account these features.

One pathological process that can account for both the local character and varied composition of atherosclerotic lesions is thrombosis. Thrombi on the walls of arteries can be transformed into atherosclerotic plaques. The plaques in turn become sites for subsequent episodes of thrombosis which enlarge them. There is, of course, evidence that atherosclerosis may arise by other means: principally by the imbibition of plasma into the intima, and by a primary disease process of the arterial wall. While it is not the purpose of this review to discuss these two concepts, it should be stated at the outset that atherosclerosis may well be due to multiple causes acting alone or in combination. This article is concerned only with the evidence that thrombosis can cause atherosclerosis.

Rokitansky,[44] over 100 years ago, first suggested that localized thickening, atheromatous change, and calcification of the arterial wall are due to repeated deposition of blood elements (thrombosis)* on the lining membrane of the vascular wall and the deposit's subsequent metamorphosis and degeneration. This hypothesis was not generally accepted at the time. The main objection was that the lesion of atherosclerosis is in the intima not on the surface and, therefore, could not be due to a surface deposit.[29] This seemingly important objection turned out to be unfounded because it was subsequently shown that endothelium can grow over a thrombus and incorporate it into the vascular wall.

With the exception of occasional brief reports[32, 52] around the turn of the last century, this hypothesis was disregarded for many years. Mallory,[31] in his Harvey lecture of 1912, considered elevated plaques of fibrous tissue on the intimal surface of the aorta usually, perhaps always, to be formed by the organization of thrombi. Mallory also remarked on the endothelization of thrombi stating that the lining endothelial cells quickly cover over the surface of any fibrin within the lumen.

He pointed out that fibrin, when not lysed, is a strong stimulus to the proliferation of fibroblasts and likened the process to the formation of thick plates of fibrous tissue on the surface of the spleen following acute infectious processes. As Rokitansky had observed by gross observation alone, Mallory noted that plaques are often stratified; the connective tissue replacing two or more layers of fibrin formed at different times could be recognized like the layers marking the annual growth of a tree.

Mallory's work attracted little attention. It was not until 1936 that a more detailed study of the role of thrombosis in atherosclerosis was made by Clark and

From the Department of Pathology, Medical College of Georgia, Eugene Talmadge Memorial Hospital, Augusta.

* *Rokitansky did not use this term but his description makes it clear he was referring to thrombosis.*

his associates.[11] These investigators studied atherosclerotic lesions in the aorta and coronary arteries and concluded that the hyalinized bands of "fibrinoid" in plaques are thrombotic in nature. They observed in some lesions a gradual transition from masses that are clearly surface deposits to those covered by endothelium and collagenous tissue. In agreement with Mallory and Rokitansky, they also found a progressive increase in the size of plaques as the result of repeated deposits of fibrin. Even though the hyalin bands in plaques were considered to be largely remnants of fibrin, they retained the term "fibrinoid" because the possibility of the occurrence of other blood elements could not be eliminated.

These observations were confirmed and extended by Duguid.[14] He pointed out that both mural and occlusive thrombi could become incorporated into the intima of arteries as atherosclerotic plaques. Occlusive thrombi may retract before endothelization is complete and in that way become mural or parietal in position.

Unorganized Fibrin

The hyalin fibrinoid material in plaques was thought by Duguid to represent patches of unorganized fibrin. Lesions of this sort were considered the essential link in the chain of evidence which connects atherosclerosis with thrombosis. Further evidence of fibrin in atherosclerotic plaques was obtained by the use of immunofluorescent techniques[50] and by electron microscopy.[22] The presence of fibrin in a plaque, however, is not conclusive evidence of thrombotic origin because fibrinogen could reach a plaque by diffusion or hemorrhage and then be converted to fibrin. The identification of fibrin in a plaque, therefore, is of less significance than the morphological studies that trace the transition of a thrombus to a plaque.

Duguid emphasized that the origin of a plaque from a thrombus may be obscured. As a thrombus is covered by new endothelium, the underlying endothelium disappears and is replaced by the invasion of connective tissue from the intima which obliterates the original line of demarcation. Crawford and Levene[12] showed in their study that thrombi are organized by ingrowth of the overlying endothelial cells which transform into fibroblasts as well as by connective tissue from the intima. This is an important point because it explains why thrombotic material often becomes encased by connective tissue and further obscured.

Crawford and Levene stated that when two zones of organization fail to meet, the remnants of the thrombus may undergo regressive changes to grumous fatty debris typical of an atheromatous plaque. Duguid thought that fatty degeneration occurs most often in red thrombi composed of tightly packed blood corpuscles and little fibrin. As will be discussed later in detail, blood platelets, which now have been identified in plaques by the use of immunofluorescent techniques,[8] also may be an important source of lipids. Foam cells characteristic of those in atherosclerotic plaques can be derived from monocytes that have phagocytized lipid-rich platelets in thrombi.[10]

At present there seems to be general agreement that recurrent thrombosis is a major factor in the growth of atherosclerotic lesions from an early stage.[17] However, it is not established how often thrombosis initiates the atherosclerotic process on a normal arterial wall. Duguid[15] found microthrombi in varying stages of organization in 15 of 50 aortas in autopsy material from cases ranging in age from 3 to 73 years. The thrombi often were found near the mouths of branches, one of the sites where atherosclerosis begins. In some instances the thrombi had formed on an apparently healthy arterial wall. He suggested that such a high frequency of these lesions indicates that thrombosis is a common cause of intimal thickening. Movat, Haust and More[35] reported similar observations. Crawford and Levene[12] also found a high prevalence of similar aortic thrombi, but none was observed on an entirely normal vessel wall.

In a study by Peters and his associates[41] atherosclerotic plaques in cerebral arteries were found only at sites where a previous occlusion could account for an observed infarct. This suggests that the plaques are derived from occlusive thrombi or thromboemboli. Several investigators, studying the pathogenesis of pulmonary hypertension due to thromboemboli, have suggested that plaques in the pulmonary arteries are formed by the organization of emboli.[2, 5, 9] Barnard[2] reviewed the subject and reported the conversion of thromboemboli to plaques in one case.

The conversion of thromboemboli to plaques is important evidence of the thrombotic pathogenesis of atherosclerosis because such emboli sometimes lodge in normal arteries. These observations are substantiated and further elucidated by the experimental studies described below.

Experimental Studies

Early experiments by Harrison[21] and by Heard[23] that proved to be relevant were concerned with the study of the fate of fibrin clots and whole blood clots, not thrombi. When clots are injected into the circulation of rabbits as emboli that lodge in pulmonary arteries, fibrous intimal plaques form as a result of incorporation of the retracted emboli into the arterial

wall. Plaques derived from clots contain little fat even though the animals may have been made hyperlipemic.[24, 48]

These studies of the fate of clots in vessels are important for several reasons. It was clearly shown that emboli composed of blood elements may become incorporated into the intima of arteries and converted to fibrous plaques. Even though the emboli are occlusive they subsequently retract to become eccentric while undergoing the process of conversion to plaques. This is a point of considerable interest because it bears out similar observations in man. Although it would seem from these experiments that red blood cells are not a major source of lipids in plaques, it should be pointed out that hematomas, e.g. in the thyroid, are known to undergo fatty degeneration.[34]

Thrombi vs. Clots

In the experimental studies discussed thus far, emphasis has been placed on the role of fibrin and to a lesser extent the cellular elements of the blood in the thrombotic origin of atherosclerosis. Little distinction was made between thrombi and clots in the interpretation of these studies. But thrombi differ from clots in both their mode of formation and composition. A thrombus forms in flowing blood and is composed of columns of aggregated platelets surrounded by leukocytes and bound together by strands of fibrin that trap variable numbers of red blood cells. In contrast, a clot that forms in stagnant blood or a test tube contains the elements of blood in their normal proportion and lacks the characteristic organized structure of a thrombus.

In a subsequent study in the rabbit, Hand and Chandler[20] used thrombi rather than clots as emboli. Typical fibrofatty atherosclerotic plaques containing foam cells and foci of calcification form in as short a period as three weeks. Organization of the retracted thromboemboli occurs both from the overlying new endothelium and the intima in the same way that Crawford and Levene[12] describe in aortic thrombi. The major source of lipid in these plaques derived from thromboemboli is thought to be platelets which are rich in lipids including cholesterol.[33] Platelets are phagocytized by monocytes in the thrombi and disintegrate into lipid droplets, thus converting the monocytes into foam cells characteristic of those in an atherosclerotic plaque. Non-phagocytized platelets often become calcified.

Phagocytosis of platelets by monocytes also occurs in mural thrombi on the surface of fabric grafts.[42] As already noted, foam cells derived from monocytes that have phagocytized platelets may be seen in human thrombi.[10]

Fatty plaques contain a variety of lipids including cholesterol which is largely esterified.[6, 7] Although most cholesterol in platelets is not esterified,[33] it is of interest to note that monocytes or macrophages can esterify ingested cholesterol.[13] In electron microscopy studies of experimental thrombotic plaques, Still[46] found miniature cholesterol clefts in foam cells by 30 days.

Red blood cells are a potential source of lipid in thrombotic plaques[3] but platelets contain considerably more lipid than red blood cells[1] and, furthermore, whole blood clot emboli do not form fatty plaques. The electron microscopy studies by Still[46] indicate that fragments of phagocytized granulocytes also may be a source of lipid. It is unlikely that any fat is derived from fibrin which is a fibrous protein.

Arterial thrombi are characteristically rich in platelets but wide variations in composition are seen. Mixed white and red thrombi form plaques that contain some foam cells,[16] but not in such quantity as in plaques derived from platelet-rich thrombi.[20] Thus, the composition of the thrombus may influence the composition of the plaque that ultimately forms. This is one reason atherosclerotic lesions may differ from each other.

Thrombi also may change in composition over a period of time.[49] Recently, Jörgensen and his associates,[26, 27] in a study of experimentally induced arterial thrombi in the pig, noted that almost pure platelet thrombi form at first but over a period of time more and more fibrin accumulates and many of the platelets disintegrate before a plaque begins to take shape. These thrombi are mural, not occlusive, and the plaques that form are largely fibrous. Occlusive platelet-rich thrombi, however, retain their platelets and do not accumulate fibrin while undergoing transformation to fibrofatty plaques.[20] These observations suggest that the nature of the initial thrombus, whether mural or occlusive, may partly determine the composition of the plaque that forms.

The topography of atherosclerosis in the pig is similar to that in man. In a study of coronary arteries and the aorta in the pig, Geissinger, Mustard and Rowsell[19] found microthrombi at sites of predilection for the development of atherosclerosis. The thrombi had formed about branches and bifurcations on apparently normal endothelium and in some instances were undergoing incorporation into the intima.

Mustard[36] found that thrombi develop in a similar pattern in experimental arteriovenous shunts made of plastic in the form of arterial branches and bifurcations. The formation and distribution of thrombi in these shunts illustrate the influence of hemodynamic forces and arterial configurations in the pathogenesis of thrombosis. Thrombi regularly form in the shunts about the branches and bifurcations at the same sites where atherosclerosis begins in arteries.

Dietary and plasma lipids may be important in the thrombotic origin of atherosclerosis for several reasons. Both arterial and venous thrombosis are associated with high fat diets and hyperlipemia in man.[4] Diets rich in fat, especially saturated fat, cause thrombosis in animals[25, 47] and increase an animal's susceptibility to experimentally induced thrombosis.[39, 40, 43] The thrombogenic effect of these diets is thought to be related to alterations in the quantity and the quality of plasma lipids. Hyperlipemia seems to be a double-edged sword because thrombolysis is inhibited in this condition thereby increasing the stability of a thrombus once it has formed.[30]

Plasma, of course, also is a constituent of thrombi and may vary considerably in amount according to the type thrombus. Lipoproteins of plasma have been identified in recent and organizing thrombi[51] and their presence in definitive atherosclerotic plaques is well established.[28] It is also of interest to note that the lipid content of platelets may vary with the lipid content of plasma.[37]

Friedman and Byers[18] have demonstated that another source of lipid in thrombotic plaques is by way of diffusion of plasma from capillaries within an organizing thrombus. Recently Mustard and associates[38] have shown that platelets undergoing aggregation and degranulation can release substances that increase vascular permeability. They suggest that the reaction between endothelium and platelets in the initial stages of thrombosis may cause increased permeability and allow plasma to be transported across the endothelial membrane.[45]

Comment

Although it is clearly demonstrated by these studies that atherosclerosis may be thrombotic in origin and the growth of a plaque due to repeated episodes of thrombosis, the question still remains: how often is this process responsible in the initial stage of atherosclerosis of man?

At present there is insufficient evidence to answer this question. A complex problem first must be resolved. This concerns the evaluation of the state of the vessel at the time thrombosis occurs. Microthrombi have been found on the surface of apparently normal arteries, but as Movat, Haust and More[35] pointed out, a thrombus may appear to lie on a normal vascular wall when submicroscopic changes actually are present.

Another aspect of the problem concerns the estimation of the age of thrombi. Although a thrombus may be recognized as "recent" in origin, it is rarely possible to determine its exact age. This is an important consideration because soon after a thrombus forms, the vessel may react and thereby change. Thus the interpretation of early thrombotic lesions in relation to normality of the vascular wall is made exceedingly difficult by the very nature of the thrombotic process.

Finally it should be emphasized that factors other than lesions of vessels may play a significant role in the pathogenesis of thrombosis. Hemodynamic forces in arteries may influence the formation and localization of thrombi and changes in the constituents of blood may predispose to thrombosis.

Conclusion

Th organization of a thrombus may result in an intimal lesion indistinguishable from that generally recognized as atherosclerotic. Both occlusive and mural thrombi may undergo metamorphosis to typical atherosclerotic plaques. Thrombosis can account for the local character and the diverse composition of atherosclerotic lesions.

Both cellular and extracellular components of a thrombus influence the composition of the plaque that eventually forms. Fibrin seems to be important in stimulating fibroblastic activity, and cellular elements, especially platelets, are a major source of lipids. Plasma lipids also contribute to the fat content of thrombi.

It is not known at present how often thrombosis initiates the atherosclerotic process on a normal arterial wall. However, the growth of plaques from an early stage in their development frequently can be attributed to recurrent thrombosis. The thrombus occluding a stenotic artery is often the most recent in a series of thrombotic episodes.

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The green and white, reflective "MD" stickers, which a physician may attach to his car bumper, are once again available from the Medical Association of Georgia. Complete with the seal of the Medical Association and the admonition to "Drive Safely," the stickers may be obtained, free of charge, by writing to: *Medical Association of Georgia, 938 Peachtree St., N.E., Atlanta, Ga. 30309.*

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■ These compounds may be useful in several categories of patients.

STEROID THERAPY OF CEREBRAL EDEMA

Richard A. Smith, M.D., *and* William A. Smith, M.D., *Atlanta*

ONE OF THE MOST IMPORTANT OBJECTIVES of neurologic surgery is the relief of increased intracranial pressure. In this effort, various methods of controlling cerebral edema may be valuable adjuncts to operative therapy.

It is well known that brain tumors may cause symptoms not only from their own mass, but also from associated cerebral edema.[17] In fact, this brain swelling may often be the more important factor in producing both increased intracranial pressure and localizing neurologic signs. This is particularly true of rapidly growing primary and metastatic malignant tumors, but even a benign meningioma may be responsible for the rapid development of edema.[17] This same problem of brain swelling is also found in other conditions such as cerebral contusion, intracranial hematoma, and trauma from operative manipulation of the brain; brain abscess; vascular lesions such as cerebral thrombosis, cerebral hemorrhage, and subarachnoid hemorrhage; and toxic and metabolic disorders.[12]

Methods of Treatment

There are available several useful methods of treatment of cerebral edema. These include hypertonic intravenous fluids, respiratory therapy, cerebrospinal fluid drainage, and steroids.

The most rapidly effective therapy is usually hypertonic intravenous fluid which lowers cerebrospinal fluid pressure within 20 minutes.[18] The benefit, however, is of limited duration. Some rebound may begin as soon as three hours after administration, and in some cases, cerebrospinal fluid pressure may then remain elevated above the initial value for over 12 hours.[18] Repeated use of hypertonic solutions may result in a dangerous degree of dehydration.[18]

The importance of maintaining a clear airway with adequate oxygenation to avoid cerebral edema from hypoxia and hypercapnea is well known. Hyperventilation may reduce brain bulk under conditions of controlled respiration, but is of use particularly in the operating room.[12]

Lumbar drainage of spinal fluid may be efficient in lowering intracranial hypertension when there is no danger of cerebral herniation,[12] but again this method is particularly useful in the operating room, and safest after the dura has been opened.

Recently, there has been increasing interest in the use of steroids to combat cerebral edema. In 1952, Ingraham[8] and his associates reported that cortisone gave protection against hypothalamic injury associated with operations for craniopharyngioma, even in patients without overt evidence of hypopituitarism. They commented on the beneficial effect of cortisone on cerebral edema, and advocated the use of steroids in all patients undergoing craniotomy for sellar and parasellar lesions. In 1957 Kofman[7] reported the first use of cortisone in patients with metastatic brain tumors. Of 15 cases of cerebral metastasis from the breast, 9 were improved in symptoms and signs; patients with other types of metastases also responded, and some maintained improvement for weeks or even months. In 1961 Galicich, French, and Melby[5] gave the first report of the value of cortisone in diminishing operative and postoperative morbidity in patients with cerebral tumors. They had initiated clinical use of steroids as a result of observations made following the administration of

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intra-arterial steroids to patients with gliomas, for the experimental study of possible steroid concentration in the tumors and effect on their growth. However the striking and rapid improvement which occurred, within 24 hours, indicated an effect on cerebral edema rather than on the growth itself. Subsequently, they noted not only clinical improvement in symptoms and signs of increased intracranial pressure and focal neurologic deficits, but also, more objectively, arteriographic evidence of improvement. Their results have now been amply confirmed by others.[1, 14, 15] The major advantages of steroids are their ease of administration, prolonged effectiveness, and safety. Improvement is usually seen within 24 hours, often within 12 to 18 hours, with maximum improvement as a rule in three to four days.[4]

Mechanism of Action

Studies with the electron microscope have shown that steroids can prevent the histological features of edema from developing, both in patients[9] and in experimental cerebral edema.[10] There is evidence also that steroids protect against the increased permeability of the blood-brain barrier caused by the intracarotid injection of Hypaque.[3] Although the mechanism of action of steroids in reducing cerebral edema is not clearly understood, it may well be an effect on water and electrolyte transfer in the brain, by restoring the normal permeability of the blood-brain barrier.[3, 10, 12]

Indications for Use

The indications for administration of steroids include several categories of patients in whom cerebral edema is apt to be important.

Patients with increased intracranial pressure secondary to neoplasm may be treated preoperatively to improve their general condition and to promote increased safety and ease of operation, and in many urgent cases may allow operation to be safely delayed while necessary diagnostic studies are being carried out. Such preoperative improvement was noted in 202 out of 249 cases by French.[3] The best responses were seen in those with metastatic tumors or glioblastomas. It is of interest that patients with subarachnoid blocks were not so benefitted. Recurrent neoplasms or unoperated malignancies may sometimes be treated for weeks or even months with symptomatic relief.[4, 7, 12, 15]

One of the most valuable benefits of steroid therapy may be a smoother postoperative course in patients undergoing intracranial procedures, by affording protection from postoperative edema.[4, 5, 12, 14] French[3] reported improvement in 11 out of 16 patients in whom therapy was begun during operation, and in 32 out of 42 patients in whom therapy was begun after operation. These operations included not only neoplasms, but also intracranial abscesses, hematomas, and aneurysms.

Steroid therapy may be very helpful in patients undergoing X-ray therapy for cerebral tumors. Of 8 patients who developed symptoms of increased intracranial pressure after irradiation was begun, French[3] reported prompt relief of symptoms within 24 hours in all 8.

Certain patients with head injuries may be helped.[3, 4, 14] In one report, out of 63 patients with cerebral contusion who had been unconscious for over 24 hours, the response was dramatic in 35, all of whom became alert and oriented within 24 hours after beginning steroids.[3]

Pseudotumor cerebri have been treated with encouraging results. Paterson[13] and her associates reported relief of increased intracranial pressure in 5 of 6 cases within an average of 12 days, compared with 6 months in patients treated otherwise. There was no improvement in a sixth case. French[3] reported improvement in 2 out of 3 patients. This treatment is also advocated by Lysak and Svien,[11] though they have not reported their results. It is of interest that pseudotumor cerebri may be precipitated by withdrawl of steroids after prolonged administration in children, with subsequent relief by resuming steroid therapy.[6]

The response of patients with cerebral thrombosis is difficult to assess and the reports have been conflicting.[2, 16] No benefit is seen in patients with cerebral hemorrhage.[3, 16] French[3] reported improvement in 40 out of 46 patients with spontaneous subarachnoid hemorrhage.

It must be kept in mind that steroids, though helpful, exert only a relative benefit. They do not give complete protection against cerebral edema, and certainly do not eliminate the problem of increased intracranial pressure in every case.[14]

Complications

Complications of steroid therapy are infrequent in patients undergoing treatment for a short period of time.[3, 4] Gastrointestinal symptoms of ulceration or hemorrhage may occur, and antacid and anticholinergic drugs should be given.[3, 19] A moon facies may develop with more prolonged therapy. Problems with serum electrolytes are infrequent. The development of hypertension has not been a problem. There has been no evidence of increased incidence of wound infection and no evidence of interference with wound healing. There has been no evidence of dissemination of infection in those patients with brain abscess.[4]

It should be noted that improvement with steroid therapy does not rule out a space-occupying lesion

such as a postoperative hematoma, and indeed preoperatively steroids may relieve all symptoms of a neoplasm. This masking of a mass lesion can lead to a false sense of security, and might be listed as a possible complication.[3]

Dosage

The steroid chosen should be one of high potency with low salt-retaining properties, such as dexamethasone, prednisone, or methylprednisolone.[3, 4, 15] The initial dose usually advocated for dexamethasone is 10 mg. intravenously, followed by 4 mg. intramuscularly every six hours. Postoperatively this is continued for two to four days, then tapered off over a period of five to seven days. A maintenance dose may be continued in some cases for prolonged periods, using up to 6 to 8 mg. daily.[4]

Case Reports

Case 1—C. B., a 61-year-old woman, had complained of headache and lethargy for one month. For five days she had had progressive impairment of speech and weakness of the left extremities. She was severely aphasic, speech being limited to simple phrases; and she had difficulty in obeying commands. There was a left central facial paresis, and marked paresis of the left arm and leg with slight spasticity. Reflexes were slightly increased on the left; the left Babinski sign was positive.

Decadron was begun with 4 mg. intramuscularly every 8 hours. Her speech was better within 24 hours, and there was progressive improvement in the strength of her left extremities. After 6 days her speech was almost normal, but she had some difficulty in obeying commands, with a marked apraxia in initiating certain movements such as sticking out her tongue. She was able to hold her left leg up, and her foot drop had recovered. There was normal strength of the left arm except slight weakness of the grip. There was only minor left facial weakness. Reflexes were slightly increased on the left, but there was no Babinski.

Brain scan and arteriograms both showed evidence of a right posterior frontal tumor. At operation, a glioblastoma was found and partially removed. Her postoperative course was uncomplicated. Steroids were gradually discontinued. At the time of discharge ten days postoperatively, her speech was normal and she was mentally clear. There was no facial weakness, and only mild, proximal weakness of the left extremities. She could walk with assistance. Reflexes remained slightly increased on the left, but there was no Babinski sign.

Comment: There was remarkable improvement in her speech and hemiparesis prior to operation, attributable to steroid therapy. It is believed that she was in better condition for her diagnostic studies and operation and probably had a smoother postoperative course than would otherwise have been the case.

Case 2—R. H., a 40-year-old woman, had severe headache for three weeks, associated with some nausea and vomiting. For four days there was progressive weakness of the right arm and face, and slowing of speech. She was lethargic but oriented. Her speech was slow but not aphasic. There was moderate weakness of the right lower face. She could weakly raise the right arm, and flex and extend the elbow; but could not touch her nose and could not grip at all. Tendon reflexes were diminished in the right arm.

Decadron was started with an initial dose of 8 mg. intramuscularly, followed by 4 mg. every 6 hours. Improvement with respect to her headache and paresis of the arm was apparent within 24 hours. By the end of 72 hours, her headache had subsided, her speech was normal, and the weakness of the right arm and face had almost cleared.

Brain scan and arteriograms indicated a left frontal tumor. Chest X-ray showed a left hilar mass, but bronchoscopy and scalene and axillary node biopsies were all negative for tumor. Craniotomy was carried out with excision of a left frontal metastatic adenocarcinoma. The postoperative course was uncomplicated. There was transient increased weakness of the right arm, which recovered within 48 hours. The steroids were gradually discontinued. She subsequently underwent a thoracotomy for removal of her primary bronchogenic carcinoma. At the time of her discharge from the hospital, the neurologic examination was normal.

Three months after craniotomy, she developed recurrent severe headache, mild weakness of the left arm and leg, and ataxia of gait, suggesting a second metastatic cerebral tumor. She was placed on oral steroids, with relief of her symptoms within a few days. A trial of withdrawing the steroids brought a prompt return of severe headache, with rapid relief upon resuming her medicine. She has remained free of her symptoms on steroids for the past two months.

Comment: This patient again illustrates the striking neurologic improvement possible with steroid therapy. We were able to complete a thorough preoperative evaluation without further deterioration in her condition. She also illustrates the palliation that may be obtained with steroids in cases of recurrent cerebral metastasis.

Case 3—E. A., a 44-year-old woman, had progressive weakness of the right arm and leg for four days. There was complete paralysis of the right extremities except for the fingers; the grip was good.

The right arm was spastic. There was a positive right Babinski; otherwise the reflexes were normal. She was begun on decadron, 8 mg. intramuscularly followed by 4 mg. every 6 hours. No improvement was seen during the first 48 hours. On the fourth day she could extend the right hip and knee slightly, and following this she improved daily. By the twelfth day she had recovered except for slight proximal weakness of the arm and leg. She was walking independently.

Brain scan, spinal fluid, myelogram, and carotid arteriograms were all normal. She was discharged on decadron 0.75 mg. three times daily. Three days later she began to worsen, and within eight days she again had total paralysis of the right upper extremity except for the grip. and of the right lower extremity except for weak hip flexion. There was mild spasticity of the right extremities, with hyperreflexia and a positive Babinski. She was readmitted to the hospital and decadron increased to 4 mg. intramuscularly every 6 hours. There was again slow improvement, but less than before. Brain scan showed possible increased activity in the parasagittal region, but a pneumoencephalogram was normal. Despite the large dose of cortisone, she progressed over the next week to total paralysis of the right arm and leg, and developed some weakness of the right lower face with mild aphasia. A ventriculogram five weeks after the onset of her symptoms demonstrated a tumor in the roof of the left lateral ventricle. At craniotomy, an infiltrating, left frontoparietal, parasagittal tumor was partially removed. This was an undifferentiated malignancy, probably an ependymoma.

Comment: This case illustrates that neurologic recovery with steroid therapy does not rule out a cerebral mass lesion. It is possible that steroids, by diminishing cerebral edema, may in some cases lessen the radiographic changes associated with a space-occupying lesion sufficiently to obscure the diagnosis.

Case 4—H. H., a 42-year-old man, had had progressive weakness and repeated episodes of paresthesias of the right extremities for two weeks. For two days his speech had been slurred. There was a mild dysphasia, and moderate weakness of the right lower face. There was total paralysis of the right arm and marked paresis of the right leg with a foot drop and paralysis of the quadriceps. The right extremities were slightly spastic. Position sense was absent in the right arm, and impaired in the right leg. Reflexes were hyperactive on the right, with right ankle clonus and a positive Babinski sign.

Brain scan showed a definite left parietal lesion. Chest X-ray showed infiltration in the left upper and lower lobes, and the right middle lobe.

His dysphasia worsened. He was begun on decadron therapy, 4 mg. followed by 2 mg. four times a day. His speech recovered within 72 hours, and there was slight improvement in the use of his right extremities so that he could make a weak grip and could weakly extend the knee. As he improved, scalene node biopsy and bronchoscopy were carried out, with negative findings.

At craniotomy, a left parietal brain abscess was excised. Anaerobic streptococci were cultured from the abscess. Postoperatively, he was treated with chloromycetin, lincocin, and gantrisin. The steroids were gradually discontinued. There was daily improvement in the hemiparesis. There was no evidence of any interference by the steroids with wound healing or of any dissemination of the infection, even though the capsule of the abscess ruptured at operation, contaminating the wound. He was discharged home on the fourteenth postoperative day. At this time speech was normal and there was no facial weakness. There was fairly good strength distally in the arm, and fairly good proximal strength in the leg. He has continued to improve at home.

Comment: This patient's condition, previously rapidly deteriorating, improved with steroids so that diagnostic studies could be carried out electively. There was no evidence of any complication from the use of steroids despite a virulent infection, probably because the infection was encapsulated and antibiotics were used. A similar case treated with steroids also had no evidence of any complication.

Case 5—R. B., a 73-year-old man, complained of progressive weakness of the right arm and leg for three weeks. His responses were sluggish. Visual fields showed a right homonymous hemianopsia. There was slight weakness of the right side of the mouth, and marked weakness of the right arm and leg. There was marked confusion as to right and left sides, and sensory inattention to the entire right side of the body.

Brain scan and arteriograms showed evidence of a left parieto-occipital tumor. A left apical mass was present on the chest X-ray; biopsy of this revealed bronchogenic carcinoma, grade 4.

He worsened, and developed marked aphasia. He was begun on oral decadron, 1.5 mg. four times daily. His speech improved within 24 hours and was normal within 72 hours. Neurologic examination was much improved. The right hemianopsia was still present, as well as the right sensory extinction; but the right-left confusion had cleared and the hemiparesis nearly so, except for slight weakness of the right grip. He did well for three weeks, until he suffered a small bowel perforation from reticulum cell sarcoma. Following laparatomy he slowly declined and succumbed to his two malignancies a month later.

Comment: This case illustrates the palliation that may occur in patients not operated upon. In most cases, the remission that may be anticipated is transient, usually not much longer than a month unless the offending lesion is removed or unless some other form of treatment such as irradiation or chemotherapy is used.[15] A similar period of remission is seen in those patients with recurrent gliomas or cerebral metastases treated with steroids.

Summary

Steroids are of significant value in the treatment of cerebral edema from various causes. They are particularly useful in the preoperative preparation of patients who have increased intracranial pressure secondary to cerebral tumors. In many cases, further deterioration is prevented, and the patient may actually improve to a striking degree neurologically and systemically while diagnostic studies are being carried out on an elective basis. Operative and postoperative morbidity may be lessened by diminishing cerebral edema. Other uses for steroids include palliation of inoperable or recurrent neoplasms, particularly in combination with X-ray therapy or chemotherapy. Steroids may also be of value in some cases of head injury and in pseudotumor cerebri.

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MAG LIAISON WITH STATE BOARD OF MEDICAL EXAMINERS

At the recent 1967 session of the Medical Association of Georgia House of Delegates meeting, the House adopted a recommendation that the MAG should establish a closer liaison and cooperation with the Georgia State Board of Medical Examiners. In the interests of carrying out this recommendation, Dr. Albert M. Deal, Statesboro, President of the Board of Examiners, was contacted by MAG Officers on this matter. Dr. Deal graciously extended an invitation to MAG representatives to visit with the Board during their June 6 meeting in Atlanta.

As a result of this meeting, an effective channel for continuing liaison between MAG and the State Board of Medical Examiners was initiated. It was agreed by both organizations that a portion of future State Board meetings would be devoted to discussions between MAG Officers and members of the State Board on problems of mutual concern. It was also agreed that this type of continual liaison would be beneficial to both organizations.

Attending this meeting on behalf of the Medical Association of Georgia were MAG President John T. Mauldin, Atlanta; MAG Ethics Committee Chairman Peter Hydrick, College Park; and members of the MAG Headquarters Office Staff. Members of the State Board of Medical Examiners include Albert M. Deal, President, Statesboro; Y. F. Carter, Nashville; W. H. Nichols, Jr., Canton; Ben H. Jenkins, Newnan; Earl A. Mayo, Richland; Louis O. J. Manganiello, Augusta; Peter Hydrick, College Park; Samuel Braly, Dallas; and James E. Anthony, Jr., Decatur. Mr. C. L. Clifton, Atlanta, serves as Secretary to the Board.

■ Although periodicities are apparent throughout living matter, there does not yet appear to be any common ground between them.

CIRCADIAN AND OTHER RHYTHMS IN BIOPHYSIOLOGY

G. Wyckliffe Hoffler, M.D.,* *Hilliard, Ohio*

EVERYDAY CYCLIC PHENOMENA such as sleep-wake and rest-work periods, the heartbeat, or the cock-crow at dawn are commonly known. Most physicians have had personal experience with disease entities such as familial periodic paralysis, periodic neutropenia, and mysthenia gravis, or observed the cyclical character of various fevers, epilepsy, psychiatric disorders, or just plain periodic malaise. Many times, however, periodicity is not recognized because it is too regular and taken for granted, or highly irregular and not apparent.

Yet, from the day of the first primordial living cell of some littoral marsh, biological function and dysfunction have been subjected to periodically altered external stimuli, e.g., light-darkness, temperature, humidity, barometric pressure, cosmic ray showers, solar-geomagnetic forces, other ionization energies, and the lunar tidal forces. Most of these quite obviously follow the earth's rotational period. By common acceptance, since Halberg introduced the term in 1959, these diurnal rhythms have been called *circadian* (*circa* = about, *dies* = day). Diurnal, per se, applies to the daylight part of the 24 hours and nocturnal, to the other phase.

Sometime in the course of evolution, by adaption and/or genetic mutation, organisms acquired *endogenous* rhythms or periodicities, the great majority of which follow approximately a 24-hour time cycle. These have been multiply demonstrated to be free-running apart from the several external stimuli noted above, although in some ways altered by them. These exogenous stimuli give these inherent rhythms "clues," however, by acting as entrainers, synchronizers, or "Zeitgeber" (Aschoff, 1954). But one must distinguish, besides the exogenous (or environment-dependent) and endogenous (persistent, inherent) rhythms, certain physiological rhythms such as heart beat, contractile vacuoles, or mitotic cycles.

Much investigation by various methods, in and out of the natural state, on animal and plant processes has been recorded since the early-mid 19th century, but only in the last couple of decades has a significant emphasis on man arisen, even though Gierse in 1842 noted the diurnal temperature variation of the human body.

Broad Animal Studies

Animal studies have been broad, including (1) nocturnal (cockroach, earthworm, owl), (2) diurnal (songbirds, butterflies), and (3) crepuscular (crowing cock, serenading frogs) types.

Diurnal periodicities are affected by earth latitude both in the duration and in the intensity of light. These alter temperature, relative humidity, and the rate of body fluid evaporation. In turn, the locale (e.g., desert, marsh land, lake or sea area) adds its effect. The diurnal insects are generally more highly evolved, quicker, and sturdier, enabling them to cope with the daylight and heat. Nocturnalism may be correlated with physiological and ecological requirements of more primitive arthropods, to escape

* *The above scientific presentation was written while Dr. Hoffler was completing his medical residency at Eugene Talmadge Memorial Hospital, Augusta, Georgia.*

competition or to seek refuge from dehydration. In larger animals and birds, nocturnalism may be secondary because of easier prey. Diurnal rhythms of aquatic animals are less well defined, but may be related to the known vertical daily migration of plankton, their food supply. Possible tide water rhythms other than circadian must also be considered.

Of lower animals, some species of *Plasmodium* demonstrate a period of peak segmentation coincident with the dark or rest period and lowered body temperature of the host. *Wuchereria bancrofti,* whose adult resides in lymph channels, shows a maximal microfilarial blood count rising from evening to midnight. Thereafter they become difficult to find in blood. They also quickly alter in 3 to 4 days this time of maxima, should the host abruptly change cycles by earth longitude time shift. Earthworms *(Lumbricus terrestris)* are nocturnal and tend to avoid light; this activity will persist in severed halves. Leeches are also night active.

The firefly *(Photinus pyralis)* shows both an endogenous and an exogenous rhythm for his lighting with respect to light intensity and temperature. The grasshopper's activity and song follow, on the other hand, purely exogenous rhythms which may be stopped at will by shutting off the illumination. Conversely, the cricket has a nearly pure endogenous rhythm, persisting for weeks under constant external conditions. Most flies, especially the swarmers, are crepuscular in activity response. The *Drosophila melanogaster,* however, shows a shift in spectral sensitivity of its retina to shorter wave lengths as light intensity lowers, which tends to increase dawn and dusk efficiency. Aphids show diurnal periodicity of flight and nocturnal quiescence, while nocturnal moths are inactivated by light—even moonlight effects a lessened trap catch count.

Influences on Vertebrates

Because vertebrates are larger, light, temperature, and humidity do not so strongly influence their activity. Predation and food availability are more their concern. Of aquatics, the common goldfish has one of the strongest and most persistent diurnal activity rhythms. The European tree frog *(Hyla arborea)* has a biphasic peak activity at noon and at dusk, while the bullfrog *(Bufo americanus)* is nocturnal with a post-dusk peak. All these rhythms are endogenous, persisting for weeks after constant darkness is established.

Generally an increase in temperature only increases the amount of activity—without any frequency change. Turtles and most lizards and snakes are diurnal, temperature and humidity being important ancillary factors to the poikelothermic amphibian and reptilian activity. Most birds and large herbivores are day-active. Smaller mammals and predators are nocturnal. Songbirds show morning activity peaks. Diurnal activity may frequently be reflected in the structure of eyes—birds have nearly pure cone retinae for sharp vision; nocturnals have reflecting tapetums behind their retinae, slit pupils, or perhaps different colored lenses for maximum utilization of low intensity light. Mammals may be diurnal, nocturnal, crepuscular, or may readily change their habits. Small rodents have very short activity-rest cycles (shrew 2 to 4 hours, and the mole 8 hours).

Lunar Tide Cycles

There are other cycles, chiefly perhaps that of the lunar tide, running some 50 minutes later each day. This was probably important to primordia which evolved in the littoral-tidal regions of earth. Such rhythms are seen today in the sea-anemone's expansion and contraction with the tide, the mud snail's change in O_2 uptake, the mussle's water propulsion, the opening of the oyster's valve, and the fiddler crab's color change. All these are endogenous, but locally synchronized to the tide. In some, concurrent diurnal rhythms are also present—giving simultaneous lunar and solar peaks every 15 days (spring tides). Bimonthly or monthly breeding cycles are also seen in sea urchins, mullusks, and crabs. One of the most unusual is the lunar-cycled breeding of the "Palolo" worm *(Polychaete)* of the Pacific coral reefs.

Fewer terrestrial animal lunar rhythms are known, but the fluctuation of Arctic animals (e.g. lemmings) may follow a lunar rhythm, and the appearance of African mayflies falls concurrently with the full moon.

Alleged correlations of the lunar cycle with menstruation, birth distribution, urine secretion, and changes of color vision in man have never been conclusively proved. Some Indian evidence favors the heat of cows with new moon.

Seasonal and reproductive cycles result from interaction of a more obvious external environment and an internal rhythm—acting through the hypothalamus and anterior pituitary of the Central Nervous System. Again, the greatest single factor externally is the increase in light, with temperature being next. Some animals (ruminants) breed with the autumnal fall of temperature. Certain social species in temperate regions (man, dogs, penguins, some seabirds) lose the uniform breeding season. The sooty tern of Ascension Island breeds regularly every nine months.

Further, activity of kidney, liver and endocrine gland cells varies. It is also known that DNA of myeloid marrow components is lowest at midnight. Skin electrical resistance is increased during sleep and GI (parasympathetic) activity is increased. Sympathetics are day-active. The EEG also gives characteristic amplitude, form, and frequency during sleep.

Human Rhythms

The human baby to about one year of age is comparatively non-rhythmic. Gradually 24-hour physiological rhythms of body temperature, blood pressure, pulse, basal heat production, and urine excretion of water, creatinine, uric acid, urea, amino acids, NPN, Na^+, Cl^-, K^+, Ca^{++}, $PO_4^{\equiv}$, and 17-OH corticosteroids are established. All individuals subjected to the usual 24-hour external Zeitgeber show variations of the above—all being generally decreased (except perhaps $PO_4^{\equiv}$ excretion) during the sleep-rest phase.

Jurgen Aschoff of Heidelberg was among the first to use the underground, vibration-free, sealed-off room in the study of human circadian rhythms in student volunteers. No communication but the sending and receiving of outside letters was allowed. Deliveries of supplies from the outside were made via two door "locks" at randomized times. The subjects could turn lights on and off at will, but illumination intensity was controlled from the outside. The subject regulated room temperature.

Typically measured were (1) Sleep-wakefulness periods; (2) Body temperature; (3) Urine volume, Ca^{++}, K^+ and Na^+.

Since light is the most important of the Zeitgeber, Aschoff studied tests of its intensity on man's rhythms, demonstrating the same results already known in animals: Increased intensity of illumination shortens period, and decreased intensity of illumination lengthens period. Light varied from 40-1500 Lux (0.3 Lux = full moonlight). Twenty-two of twenty-six subjects showed basic periods greater than 25 hours. One living 10 days in 0.3 Lux had a period equal to 23.6 hours. Another student kept at 1500 Lux had a period equal to 19.0 hours for 10 days—later shifting to 25.8 hours (by his own conscious effort). Thus 85 per cent of all subjects had periods greater than 24 hours because of: (a) the dim illumination relative to natural light (the "Circadian rule"); (b) the monotony—lack of noise and social contacts; and (c) ? feedback between the subject's endogenous cycle and self-selected stimulation.

Dissociation

Most individuals show the same (or only slight variations from a given) period for all measures of their rhythm. Some, however, demonstrate marked variations—or *Dissociation, Desynchronization*—of certain components, e.g., 32.6-hour sleep-wake and Ca^{++} excretion, but 24.7-hour urine water and potassium excretion and body temperature variation. With this particular individual all events would be synchronous every 3 to 4 days. At these times the individual had recorded in his diary that he felt especially "well and fit."

Dissociation has also been observed in individuals entrained to 21- or 27-hour days. Some facets adapted while others remained on 24-hour period. Similar non-metabolic observations have been noted with polar explorers over extended times.

The application may be taken to industry, where accident rates have long been known to be greatest at 3 o'clock a.m. Night workers find conflicts with tendencies to: (a) remain entrained with social Zeitgeber while trying to (b) become adjusted to the shifted work-rest cycle.

Even without conflicting Zeitgeber, just moving a 180° shift along a latitude parallel requires about 6 days for resynchronization and 2 to 3 days for only a 90° shift, with interim tiredness and decreased efficiency. The time necessary for readjustment is greater when the light-dark cycle is shortened once by 6 hours (going east) than when it is similarly lenghtened (going west), a fact not always appreciated by today's jet traveller who must experience these changes. The even more complicated rapid alternation of night-day cycles experienced by the astronauts is, of course, still not fully evaluated.

The wonder of all this is how a biological "clock" can keep itself set to such constant metabolic events —little affected by temperature changes or regulation. It cannot be a simple metabolic-biochemical process with two-fold changes for 10°C. elevation, and many present-day workers do not believe the more exotic forces (cosmic rays, earth's magnetic field, etc.) are significant factors.

"Master Clock" Concept

The concept has arisen of "clocks" for every cell, group of cells, and organ system—all generally controlled by the "master clock," the Central Nervous System. Richter divides them into three groups by location or functions: peripheral, central, and homeostatic. This idea is also extended in the opposite direction. At the molecular level in cell mitoses, perhaps RNA acts as a "master oscillator," since the metabolism of nucleic acids, as well as mitosis, appears to be a 24-hour periodic function.

At present the problem is envisioned thus: (a) This periodicity of living organisms is innate, in-

herent. (b) It is complex beyond simple biochemical processes. Theories prevailing assume twin enzyme systems, activator and inhibitor, both equally affected by temperature and thereby uninfluenced in result. (c) To persist in organisms normally inhabiting a fluctuating environment, some advantage to survival must be bestowed by these endogenous chronometers —such as anticipatory adaptation for time-sense when the Zeitgeber may not be present.

Finally, it is enticing to conjecture that all sorts of intertwined living rhythms exist, function normally, and oscillate out of phase. It would not be difficult to envision some disease entities having etiology in an erroneous "physiological clock." Many examples are given by Richter and Reimann (e.g. hydrathrosis, agranulocytosis, catatonic schizophrenia). At the same time, a definition of health, both mental and physical, could be the synchronous harmony of a majority of biological rhythms.

But to keep the perspective objective, Cloudsley-Thompson advises, "The only conclusion that can be drawn with any certainty is that, although periodicities are apparent throughout living matter, there does not yet appear to be any common ground between them. It is dangerous to lump together a number of unrelated phenomena under ill-defined names such as rhythmic or cellular activity—a trait as seductive as it is misleading."

The only logical conclusion is that of the need for much additional scientific work in the area of circadian rhythms. With man's ever-narrowing encroachment upon the time scale, this seems inevitable. With most effects of such rhythms bearing upon biological functions, it would seem right for the task to be performed by bio-medical scientists.

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REVERSIBLE INACTIVATION OF ANGIOTENSIN IN HYPERTENSIVE AND NORMOTENSIVE SUBJECTS

Robert H. Harris, Jr.,* M.D., and J. Edwin Wood,** M.D., *Charlottesville, Virginia*

■ **Radio-sodium clearance is used in the determination of vasoactive angiotensin present in a local tissue.**

INTEREST IN THE VASOACTIVE octapeptide angiotensin and its involvement in the etiology of arterial hypertension has grown steadily since Goldblatt in 1934 produced persistant hypertension in dogs by constriction of the renal arteries.[1] Subsequent studies[2] revealed that the ischemic kidney elaborates renin, the enzyme which, in the blood, reacts with an alpha-2 globulin called renin-substrate or angiotensinogen, to release a decapeptide, angiotensin I. Angiotensin I is rapidly converted to the octapeptide angiotensin II by a circulating blood enzyme, which has been named "converting enzyme" by Skeggs.[3] Although neither renin nor angiotensin I are vasoactive, angiotensin II is the most potent vasopressor substance known.[4]

The synthesis of angiotensin II, a feat accomplished independently in 1957 by Bumpus *et al*[5] and by Rittel *et al*,[6] has led to the manufacture of the pure compound, the availability of which has greatly facilitated investigation in the area.

Although a variety of experiments by different investigators has produced evidence that an abnormality of the renin-angiotensin system may be the underlying cause of essential hypertension, the specific nature of this abnormality has not been characterized. Helmer[7] has found elevated renin levels in the plasma of hypertensives, while Genest *et al*[8] have failed to find elevations. Kahn *et al*[9] found a slight elevation of blood angiotensin levels in hypertensives as compared with normotensives, but there was considerable overlap between the two groups in his study. Using iodine-131-labelled angiotensin, Mendlowitz *et al*[10] found that the rate of degradation of angiotensin was slower in hypertensives than in normotensives. On the other hand, it has been found that the activity of angiotensinase, an enzyme which specifically degrades angiotensin, is higher than normal in hypertensives.[11] Wood,[12] using the technique of incubating angiotensin with a subject's blood and reinfusing the mixture into the subject, has shown that the blood of the offspring of hypertensive parents has a relative inability to neutralize the vasopressor activity of angiotensin *in vitro,* and that this inability is apparently transmitted from parents to offspring via a simple dominant gene.

Angiotensin injected into a tissue produces vasoconstriction and slowing of blood flow in the local injection area.[13] Kety[14] has shown that the rate of disappearance of a freely diffusable ion, such as sodium, from such an injection site is directly proportional to the rate of blood flow within the site. Therefore, it was proposed that the rate of disappearance of the radioisotope of sodium, Na^{22}, could be used as an indirect measure of the amount of vasoactive angiotensin present in a local tissue. This paper presents the results of a study to further investigate the effects of both normotensives' and

* *Dr. Harris is a 1966 graduate of the Medical College of Georgia, Augusta. The above scientific presentation was written during his senior year there.*

** *Former holder, Georgia Heart Association Chair of Cardiovascular Research, Medical College of Georgia, Augusta.*

hypertensives' blood on angiotensin, using the clearance of radio-sodium as described above.

Method

Synthetic angiotensin II was incubated with heparinized venous whole blood from a test subject. A portion of this was reinjected subcutaneously along with a small quantity of radio-sodium. The activity of the radio-sodium was then measured with a scintillation counter over a period to time, and the rate of disappearance of radio-sodium from the injection site was calculated. This method is illustrated in Figures 1 and 2.

A 10-ml. plastic syringe containing 5 μg. of angiotensin II was fitted to a 3-way stopcock into which were also fitted a tuberculin syringe containing heparin, and an 18-gage needle. A small quantity of venous blood was drawn first into the tuberculin syringe in order to introduce the heparin and position the needle. This blood was then drawn into the plastic syringe, via the stopcock, and blood was drawn from the vein to a volume of 10 ml. This was thoroughly mixed, and 0.5 ml. of the mixture was introduced via the stopcock into another tuberculin syringe containing 1.0 μc. of isotonic Na^{22}. This syringe was then incubated at 37°C. in a water bath for 10 minutes.

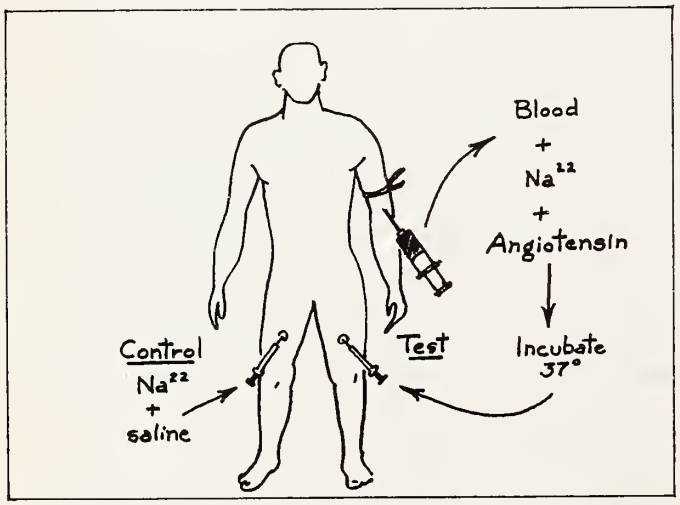

FIGURE 1

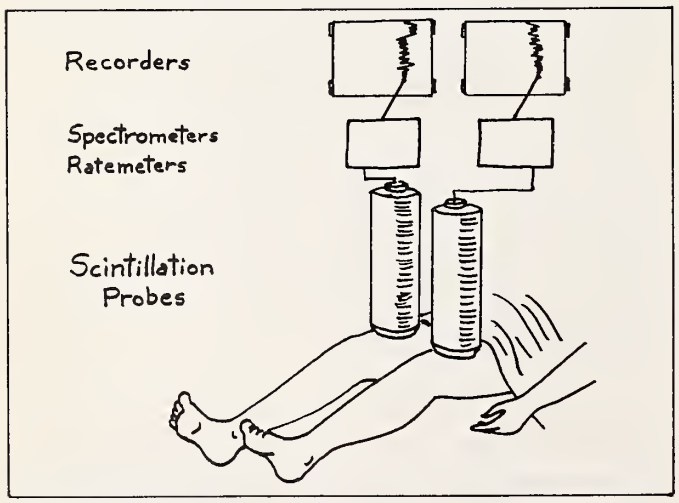

FIGURE 2

At the end of this time, 0.1 ml. of the Na^{22}-blood-angiotensin mixture was injected subcutaneously into the anterior aspect of one of the subject's thighs. One-tenth ml. of Na^{22}-saline mixture was injected subcutaneously into the opposite thigh as a control. In a separate group of control subjects, saline was substituted for blood.

After the injections were made, the subject lay supine in bed and activities were counted with dual-scintillation probes with spectrometers, ratemeters, and recorders. The probes were positioned so that the crystals remained in direct contact with the skin over the injection sites throughout the experiment. A recording was made for 70 minutes in each experiment, during which time the subjects lay quietly in bed while the room temperature was maintained constant at about 86°F.

Method of Calculation

For each experiment, the counts per minute were read from the recorder chart and plotted against time on semi-logarithmic paper.

Radio-sodium clearance rates were calculated from the slopes of the curve in each instance, using the equation of Kety,[14]

$$k = \frac{\log C_1 - \log C_2}{0.4343\ (t_2 - t_1)}$$

in which k is the clearance rate in per cent cleared per minute and C_1 and C_2 are the counts per minute at times t_1 and t_2 respectively.

The test rate was divided by the control rate over those periods of time in which both rates were constant. The resulting number is hereafter referred to as the *corrected rate*. The change in the corrected rate throughout the test period was calculated as the ratio of the final corrected rate to the initial corrected rate. The initial corrected rate was taken as the first corrected rate which could be obtained after the clearance rates had stabilized, usually 5-10 minutes after injection; and final corrected rate was taken at the end of the 70-minute period. Thus, a ratio of 0.5 represents a halving and a ratio of 2.0 a doubling of the corrected rate.

Results

The test was performed on 13 hypertensive and 14 normotensive subjects, all hospitalized patients. The hypertensive subjects were selected on the basis of having sustained elevated diastolic blood pressure (greater than 95 mm. Hg) and having a strong family history of hypertension. There was no evi-

dence of primary renal disease; renal vascular disease; endocrine disorders such as pheochromocytoma, Cushing's disease, or hyperaldosteronism; or other special form of hypertension in these patients. The normotensive subjects were patients in the 40-60 year age range, with normal diastolic pressures, and with no family history of hypertension. The additional control group, in which saline was substituted for blood, was composed of 5 normotensive subjects.

Typical radio-sodium clearance curves for both hypertensives and normotensives are shown in Figure 3.

The ratios of the corrected rate of the 3 groups tested are shown in Table I. The mean ratio of the hypertensives was 3.95, and that of the normotensives was 1.90. The mean ratio of the 5 normotensive controls was 4.56. The difference between the normotensives and hypertensives, and between the normotensives and the normotensive controls were significant (p less than 0.01 in both cases). The difference between the hypertensives and the normotensive controls was not significant (p greater than 0.50).

Discussion

The rate of clearance of radio-sodium has been used by a number of investigators as a measure of blood flow through a local area.[15, 16] The method employed in this study, that of subcutaneous injection of Na^{22}, is a modification of the method of Harris *et al.*[17] It is well established that the rate of clearance of radio-sodium is directly proportional to the rate of capillary blood flow.[14] Therefore, the clearance rate was interpreted to be an inverse measure of the degree of vasoconstriction present in the injection site. The correction of the test rate by dividing the test rate by the control rate was designed to take into account spontaneous changes in vasomotor activity, independent of the local effect of angiotensin, that took place during the 70-minute period. The corrected rate resulting is, in effect, the fraction of normal blood flow occurring in the test injection site.

In every test, the corrected rate increased throughout the test period, reflecting an increase in blood flow through the test injection area due presumably to the enzymatic destruction of the angiotensin. This increase, expressed as the ratio of final to initial corrected rate, was greater in the hypertensives than in the normotensives. The normotensive control group, using saline instead of blood, was used to test the question of whether this result was due to a higher-than-normal rate of enzymatic destruction by the hypertensives' blood or, conversely, to a process which both inactivated, and inhibited the enzymatic destruction of, angiotensin in the normotensives' blood. The latter explanation is consistent with the fact that the mean increase in rate of the normotensive controls was similar to that of the hypertensives, and different from the normotensives.

When combined with the finding of Wood[12] that angiotensin is inactivated by the blood of normotensives more readily than by that of hypertensives, these results suggest that the inactivation of angiotensin by normotensive blood is not a simple process of enzymatic destruction.

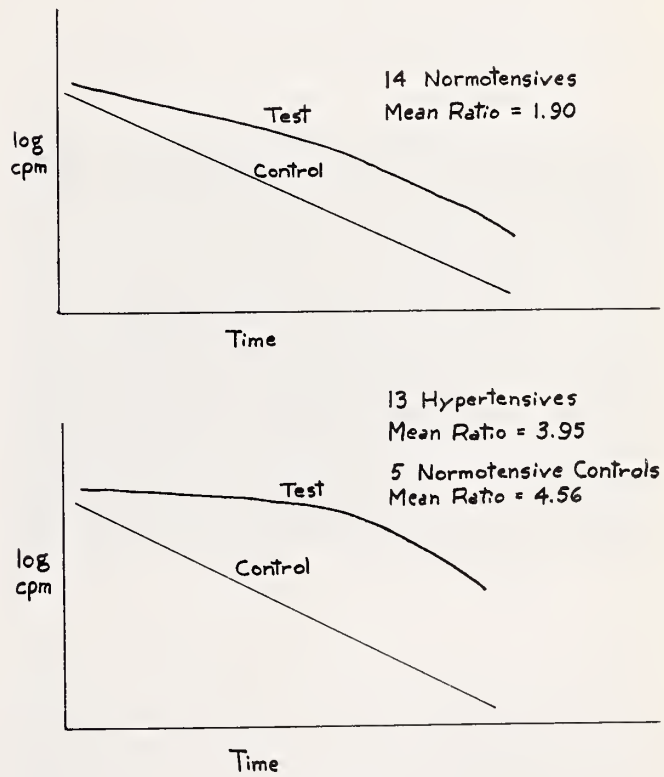

FIGURE 3

Typical Na^{22} = disappearance curves for normotensives, above, and for hypertensives and normotensive controls, below.

TABLE I

RATIOS OF FINAL TO INITIAL CORRECTED RATES

Normotensives	Hypertensives	Normotensive Controls
1.73	4.40	1.83
2.04	4.17	3.24
2.21	8.12	6.10
2.20	1.73	8.15
1.53	3.47	3.50
2.54	3.93	
1.51	2.58	Mean = 4.56
1.06	3.40	
1.25	2.34	
1.61	2.26	
1.82	2.30	
1.87	10.00	
1.42	2.64	
3.74		
	Mean = 3.95	
Mean = 1.90		

Wood (unpublished data) has also found that angiotensin, when incubated with normotensive's blood, was not vasoactive when reinfused into the subject, but was active in rats. The material which produced the pressor response in rats was found to be non-dialyzable.

The results of these studies suggest the concept that in normotensives, angiotensin is reversibly inactivated by binding to a high-molecular weight substance found in the blood, and that hypertensives are deficient or lacking in this process.

If these concepts are correct, their importance in the etiology of essential hypertension is obvious. It is easy to envision that a system which inactivated angiotension by forming a complex would be susceptable to saturation, a fact which would permit the usefulness of the renin-angiotensin system to be retained if large amounts of angiotensin were produced, as in shock. On the other hand, small amounts of angiotensin would be reversibly neutralized as soon as they were formed, resulting in a long-lasting but slight vasopressor response which might well be a part of the mechanism of maintaining normal blood pressure.

The ability of a test such as used in this study, to differentiate essential hypertensives from normotensives, and presumably from subjects suffering with other, non-genetic types of hypertension would be significant in view of the fact that many of the types of non-genetic hypertension are subject to complete correction by surgery or other means. Additionally, if the postulated angiotension-binding material missing in essential hypertension could be isolated and characterized, a more fundamental approach to the treatment of essential hypertension may be anticipated.

Summary

By using the clearance rate of sodium-22 as an indirect measure of the degree of vasoconstriction present in a subcutaneous injection site, it has been shown that angiotensin is less rapidly inactivated by the blood of normotensive subjects than by that of hypertensive subjects. This appears to be due to a process which neutralizes the vasoactivity of angiotensin while inhibiting its enzymatic destruction rather than to an elevated destructive capacity of hypertensives' blood. It has been postulated that the mechanism of this process is one in which angiotensin is bound to a high-molecular weight substance present in greater quantity in normotensives' blood than in hypertensives'.

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University of Virginia Hospital

GEORGIA REGIONAL MEDICAL PROGRAM—OFF AND RUNNING

J. Gordon Barrow, M.D., Director,
Atlanta

THE APRIL ISSUE of the *Journal of the Medical Association of Georgia* contained an excellent review of the Regional Medical Program with an insight into the national planning and a detailed discussion of the Georgia plans. A unique feature of the Georgia plan is the organization of local advisory groups in each community hospital in the state to affiliate local direction with an overall regional program of health planning and operation. This aspect has gained national attention and is being observed for its success.

An invitation was sent to each hospital to organize a local advisory group. Response has been gratifying in that 116 hospitals have now appointed official groups. Each local group consists of a physician as chairman who is elected by the hospital medical staff, an administrator appointed by the senior administrator, a nurse selected by the organized nursing service, and at least one interested member of the public selected by the hospital governing board.

Objectives Discussed

The objectives of the Georgia Regional Medical Program and the role of the local advisory groups were discussed at a meeting held in Atlanta on June 4, 1967. In attendance were 88 local advisory group chairmen and others representing 79 participating community hospitals. This meeting was opened by Dr. John Mauldin, President of Medical Association of Georgia, who emphasized the function of the Medical Association in the success of the Georgia Regional Medical Program.

For this meeting we were fortunate in having as guest speaker Dr. William Mayer, Associate Director of the National Regional Medical Program, who reviewed the history of Public Law 89-239 which is the authority for this program. Dr. Mayer brought us up to date on the progress in implementing the objectives of the law at the national level and in certain selected states which already have been awarded operational grants.

Some of you will remember that Dr. Mayer was the featured speaker at the Georgia Medical Education Conference at Callaway Gardens early this year, and those of us who heard him either then or at the June 4 meeting were impressed by his ability to make a complex law clear to everyone.

During a break at the June 4 meeting—the Georgia Regional Medical Program's objectives have generated discussion among the Local Advisory Group chairmen.

The "buzz session"—What are the important local problems?

Following Dr. Mayer's address, Dr. Gordon Barrow summarized the Georgia planning grant and reviewed the progress to date. He said that now physicians' individual efforts can be coordinated and supported, and emphasized that this is the first time we have ever had an opportunity to plan the *complete* details of a large federal program entirely at the local level. The doctors present were challenged to make this the most effective health planning ever accom-

plished so that continued *local control* of planning activities might be encouraged.

Dr. J. Willis Hurst, Chairman of the Department of Medicine at Emory, explained the role of the medical schools in the Georgia Regional Medical Program. Dr. Hurst has been active in the Regional Medical Program from its beginning. He was a member of the President's Commission on Heart Disease, Cancer and Stroke; was also a member of the first Advisory Council to the Regional Medical Program; and as chairman of the Steering Committee of the Georgia Regional Medical Program, he was largely responsible for writing the planning grant application for Georgia Region. In his talk, Dr. Hurst emphasized that the initial concept of "medical centers" has been replaced in the law by "medical program" and that the role of the medical school is to help strengthen the local facilities and services rather than replace them. He particularly stressed the role of the universities in continuing education for both the physicians and allied health personnel.

Evaluation Included

Dr. Raymond Ahlquist, Associate Dean of the Medical College of Georgia, reviewed the plans for building evaluation into the Georgia program from the beginning. He emphasized the importance of knowing the true value of everything we do so that both the effort and the money may be used efficiently. The Medical College of Georgia has accepted the responsibility of developing and coordinating this important part of our program.

Dr. J. W. Chambers, Coordinator for the Regional Medical Program, has worked closely with the Steering Committee and program staff to develop and implement the planning activities in Georgia. He charged the local advisory groups with the task of identifying local needs and recommending ways to meet these needs. A very productive but brief "buzz session" followed, and the questions raised were discussed by a panel composed of Doctor Chambers as moderator, and Doctors Mayer, Hurst, Ahlquist, Barrow, Louis Battey, and Robert Smith. The meeting ended with the feeling that a good beginning had been made.

The discussion panel composed of (left to right) Drs. Louis Battey, Augusta; Robert Smith (partially hidden), Atlanta; J. Willis Hurst, Atlanta; J. W. Chambers, La Grange; Raymond Ahlquist, Augusta; William Mayer, Bethesda, Maryland; and J. Gordon Barrow, here emphasizing that this program will be handled entirely by people in Georgia.

Since the June 4 meeting, task forces who will actually write the Georgia operational grant requests have been organized by the Steering Committee. The task force structure is described in the following statements. There will be six primary and seven coordinating units. The primary units are disease oriented and are task forces on 1) stroke, 2) coronary and vascular diseases and diabetes, 3) hypertension and renal diseases, 4) con-

Dr. J. W. Chambers keynotes the role of the Local Advisory Groups, ". . . to some extent, with help, we might make every community hospital in the state a teaching hospital."

Local Advisory Group—The Hamilton Memorial Hospital Local Advisory Group discussing the local health problems of Dalton-Whitfield County area. Seated (left to right): Mrs. Vivian Cordell, R.N., Director of Nursing Service; Dr. J. E. Marlow, Chairman, Local Advisory Group; Mr. David Hamilton, Chairman, Dalton-Whitfield County Hospital Authority; Miss Annie W. Dalton, Administrative Assistant and Executive Secretary, Whitfield County Medical Society; and Dr. S. L. Sellers, President, Medical Staff, Hamilton Memorial Hospital.

A Task Force at work—The Hypertension and Renal Disease Task Force (left to right): Elsie Brown, G.R.M.P. Administrative Aide; Drs. Louis Battey, Augusta; Huddie L. Cheney, Jr., Thomasville; J. Gordon Barrow, G.R.M.P. Director, Atlanta; Joseph Wilbur, Atlanta; Elbert Tuttle, Chairman, Atlanta; and James B. Hudson, Augusta.

genital and rheumatic cardiovascular diseases, 5) cancer (solid tumors), and 6) cancer (leukemia and lymphoma). These six groups will evaluate needs in their area of interest and channel this information to the appropriate coordinating units, which are the task forces on 1) health manpower, 2) continuing education and medical libraries, 3) hospital facilities and services, 4) out-of-hospital facilities and services, 5) casefinding, epidemiology and prevention, and 6) financing of health care. Then the seventh unit, the evaluation task force, will review all of the plans submitted so that proper evaluation procedures may be incorporated. Finally, the compilation unit, made up of the chairmen of the thirteen task forces, will work to draft the applications for operational grants. The grant requests will be reviewed and approved by the Steering Committee and by the Regional Advisory Group who represents all of the cooperating organizations and institutions.

Through this organization, the cooperative endeavors of the Local Advisory Groups and the Regional Advisory Group and its Steering Committee, working with the respective disease and coordinating task forces, should strengthen and support efforts of Georgia physicians and provide continuing stimulus. To quote the summary of the Community Services Division of the Second National Conference on Cardiovascular Diseases, ". . . The challenge is great, the stakes are high, and the rewards enormous. Let the medical profession, the voluntary agencies, the public authorities, and each community accept the challenge . . . and reap the benefits."

We are now off and running, well on the road to assisting ourselves in giving better care to our patients.

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Parepectolin for quick relief of acute diarrhea
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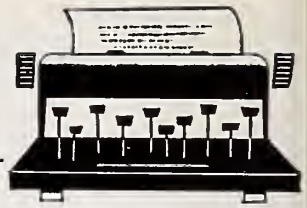
EDITORIALS



The Abortion Law

Over the past few years, there has been an awareness throughout the United States that the time has come to revise some aspects of the abortion laws in each state. The laws differ greatly from state to state, and Georgia's law as it now stands will not allow the interruption of a pregnancy "unless the same shall be necessary to preserve the life of such woman." It is fairly obvious that this does not allow for abortions to be done when an epidemic of German measles occurs or at times when a continuation of the pregnancy would severely damage the woman. Those physicians doing abortions for rubella, even though they are well covered by consultations, are subject to legal action.

Bill Passes House

During the 1967 General Assembly, an attempt was made to liberalize Georgia's abortion law in House Bill No. 281. The bill passed the House of Representatives but was tabled in the Senate Committee hearing. Since that time, Colorado, North Carolina, and Florida have all revised their abortion statutes.

There are two major obstacles to the liberalization of the law, one being a religious objection, and the other, the necessary means for providing adequate supervision statewide so that an "abortion mill" would be impossible to exist.

AMA Proposal

The AMA Committee on Human Reproduction has proposed what the Medical Association of Georgia's Committee on Maternal and Infant Welfare feels is a good law. There are three points to this. A physician could terminate a pregnancy (with consultation by two other physicians) if he can reasonably establish that (1) there is substantial risk that the continuance of the pregnancy would gravely impair the physical or mental health of the mother; (2) there is substantial risk that the child will be born with a grave physical or mental defect; or (3) the pregnancy resulted from legally established statutory or forcible rape or incest.

Physicians throughout the state should be as influential as possible in their local communities and in the state legislature to be sure that a better law is put on the books with the next General Assembly than exists today.

Joseph L. Girardeau, M.D.
1293 Peachtree Street, N.E.
Atlanta

AMA 116th Annual Meeting Actions

This report is merely a summary of the more important actions and highlights of the 116th Annual Convention of the American Medical Association, June 18-22, 1967, Atlantic City, New Jersey.

Dwight L. Wilbur, M.D., San Francisco, California, was elected AMA President-Elect and Malcom E. Phillips, M.D., El Reno, Oklahoma, was elected Vice President of the Association.

Therapeutic Abortion

The following was established as policy of the AMA:

". . . Recognizing that there are many physicians who, on moral or religious grounds, oppose therapeutic abortion under any circumstances, the American Medical Association is opposed to induced abortion except when:

"(1) There is documented medical evidence that continuance of the pregnancy may threaten the health or life of the mother, or (2) There is documented medical evidence that the infant may be born with incapacitating physical deformity or mental deficiency, or (3) There is documented medical evidence that continuance of a pregnancy, resulting from legally established statutory or forcible rape or incest may constitute a threat to the mental or physical health of the patient; (4) Two other physicians chosen because of their recognized professional competence have examined the patient and have concurred in writing; and (5) The procedure is performed in a hospital accredited by the Joint Commission on Accreditation of Hospitals.

"It is to be considered consistent with the principles of ethics of the American Medical Association for physicians to provide medical information to State Legislatures in their consideration of revision and/or the development of new legislation regarding therapeutic abortion."

Health Care Cost

A number of actions were taken to outline possible solutions to the problems of higher health care costs. One was the adoption of a progress report on strengthening and improving voluntary health insurance programs, submitted by the Council on Medical Service. The House accepted the Council's statements that it would "continue to study the scope and patterns of benefits, public demands for coverage, the performance of health insurance and prepayment programs and accumulation of data for future use"; and that the Council would "proceed to develop guiding principles for health insurance and prepayment programs."

As further efforts in this direction, the House referred to the Board and to the Council on Medical Service a resolution that the AMA "consult with insurers in an effort to change their policy of insurance coverage so that payment can be made for diagnostic procedures and minor surgery performed in the physicians' office and/or in the hospital out-patient department"; adopted a resolution that the Association petition Congress to remove the restriction on first-dollar deduction from income tax laws for health care expenditures; and adopted the over-all policy that "physicians . . . continue to do everything possible to help the public conserve its health care dollars."

Government Health Programs

The House re-affirmed Association policy that "the medical profession has long and consistently held to two basic positions concerning personal health care and its financing: that no one should go without needed care because of inability to pay, and that responsibility for payment rests first on the individual himself and then, to the extent that he is unable to pay, on his family, the community, the county, the state, and, to the extent that lesser levels of government are unable to finance the care, the federal government."

Recommendations adopted by the House are that the medical profession take a strong stand in support of implementation of Title XIX "while still seeking such changes in the federal legislation and/or regulations as will improve this program; that it urge organized medicine to take a leading role in formulating and directing Title XIX programs at the state and local level . . . and that it incorporate in such planning the use of existing voluntary mechanisms and private insurance carriers, wherever feasible, utilizing the usual and customary fee principle, thus bringing within the mainstream of present medical care systems the provision of quality health care for all Americans."

More generally, in connection with any and all government medical care programs, guidelines were adopted by the House:

"The medical profession in any community is best represented by the local medical society and its officers. They should be consulted initially, and during the process of planning of any and all projects for the care of the sick and the preservation of health."

In proposing any new facility, "It shall be first determined that existing facilities are so inadequate that only a completely new facility will provide a solution.

"The responsibility for the health needs of a community basically resides at the community level, and all the local resources . . . shall be examined before the community accepts government monies.

"If it is deemed advisable to operate a government-financed facility in a community, it shall in no way be binding upon a physician to refer his patients there, to coerce a physician to service the facility, and this facility must in no way infringe upon the private practice of medicine.

"These projects should not be developed or operated in such a manner as to establish a precedent that could lead to a governmental controlled medical care system in this country."

Medicine and Osteopathy

The House adopted the following recommendations of the Board regarding the medical profession's relationships with osteopathy:

1. Authorize the Board of Trustees to begin promptly negotiations directed toward beginning official change of schools of osteopathy to schools of medicine. (It is understood that from the American Medical Association funds will be required to con-

duct these negotiations, and assistance in identifying and securing additional funds from other sources to support efforts toward changing the schools.)

2. Authorize the Council on Medical Education to undertake negotiations to establish means by which selected students with proven satisfactory scholastic ability in schools of osteopathy may be considered by schools of medicine for transfer into medical school classes.

The full report adopted by the House also stated: "It is to be assumed that the cultist approach to osteopathy continues in the 11 states where only restricted licenses are granted and in other states among older osteopaths who hold restricted licenses by their own choice. In these instances, existing AMA policies condemning voluntary relationships as unethical should continue as guiding principles."

Medical Manpower

The House accepted for information a report from the Board which pointed out that "The production of well qualified physicians in adequate numbers is necessary to meet effectively both social and economic demands for health care." It reviewed some of the activities of the Committee on Health Manpower and concluded that "The AMA should continue to study the effect of new roles for health personnel and new interrelationships and interdependencies between health professionals, as well as the impact of innovative concepts on the organizational structure evolving in the general system of health care delivery. . . .

"In any event, our resolve should always be as it is now: to use the best tested and most forward looking measures to provide excellent health care for all of our citizens through an ample number of able, educated and highly skilled physicians."

The House also referred to the Board, for consideration by the committee, a resolution that "deliberations include strong emphasis on sound ways of accelerating medical education in all its phases, including post-MD and graduate education, and of increasing the supply of physicians in all categories."

In addition, the House adopted a resolution calling for the promotion of better practices in inhalation therapy; and adopted a resolution that the AMA reaffirm its support of all forms of nursing education; that hospitals which conduct diploma schools of nursing be commended; that such hospitals be urged to continue their schools and increase enrollment; and that the AMA take appropriate action in consultation with professional nurses' associations and the American Hospital Association to encourage increasing enrollment in diploma schools and at the same time improve educational standards.

Members' Disability Insurance Program

The House authorized the Board to make every effort to continue the AMA Members Group Disability Insurance Program with the same premium-benefit structure. It also recommended the following guidelines to aid the Board in negotiating and executing the necessary contracts and in the future operation of the program:

(1) The contract should provide ample assurance that disability claimants will be treated equitably and justly; (2) The carrier should guarantee benefits and premiums for a period of at least five years in order to assure the stability of the program; (3) Promotional literature should be approved in advance by the Board or its designee. All measures within the bounds of dignity and ethics should be utilized to promote the program; (4) A continuous ongoing review of the entire program should be maintained. The insureds and other members should be made aware that such a review may reveal in the future the necessity for a revision of the program at the end of the five-year period; (5) Information regarding the operation of the program, its financial aspects and the processing of claims should be available to the Board for review at any time; and (6) An AMA Disability Insurance Review Committee should be continued and should provide a mechanism for claims review.

Generic Prescribing

A resolution combining several state resolutions was adopted by the House asserting "that the AMA again reaffirm its policy that physicians should be free to use either the generic or the brand names in prescribing drugs for their patients; and encourage physicians to supplement medical judgments with cost considerations in making this choice."

Other Actions

The House adopted many other resolutions, including these:

Confirming that there is nothing in the military officers' oath that conflicts in any way with the ethics of the medical profession.

Noting that a double standard of policy often exists between so-called "hospital-based specialists" and other types of practitioners with respect to hospital staff appointments and endorsing "the principle of a single standard with respect to staff appointments among all physicians having equivalent credentials in all hospital departments and services as a means of assuring maximum freedom of choice of physicians by patients, and of consultants by staff members."

Requesting the JCAH to "encourage . . . the acceptance, wherever possible, of physicians elected or

appointed by the medical staff to the Board of Trustees with full voting rights as the most effective form of liaison between the medical staff and hospital governing authorities."

Opposing the establishment of a racial quota system for hospitals.

Reaffirming the Association's policy regarding tobacco and health and promising vigorous continuation of its measures for corrective action.

Urging that disposable hypodermic syringes be thrown away in such a way as to prevent their possible re-use.

Encouraging state associations to inform state legislators of the need to re-examine existing "battered child" laws so child abuse is to be reported by physicians as well as medically oriented social services.

Supporting continued research and control measures for venereal disease.

Reaffirming the Association's opposition to requirements for certification and re-certification under P.L. 89-97.

"HEALTH RESOURCES STATISTICS" NOW AVAILABLE

The first edition of *Health Resources Statistics, Health Manpower, 1965*, prepared by the National Center for Health Statistics of the Public Health Service, is now available. This issue on health manpower is the first of a series of publications which will cover additional data on manpower, facilities, and other resources in the health field.

This report encompasses about 140 health professions and occupations requiring some special education or training to function in the health field. An attempt has been made to present statistical information on the numbers of health personnel employed and their location by State; growth in employment since 1950; distribution by type of practice, function, and/or specialty; trends in numbers of training programs and graduates since 1950; and the location of institutions that now offer training programs, with the numbers of students and graduates in the academic year 1964-65.

This Public Health Service Publication No. 1509 can be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, at a price of $1.25 per copy.

1967 CALENDAR OF MEETINGS

State

September 15-16—Tidewater Heart Association (Eighth Annual Cardiovascular Symposium), Golden Triangle Motor Hotel, Norfolk, Va.

September 17-19—Birmingham Academy of Medicine, Tenth Annual Medical Progress Assembly, Parliament House, Birmingham, Ala.

September 18-19—Nineteenth Annual Scientific Sessions of the Georgia Heart Association, Atlanta Marriott Motor Hotel, Atlanta.

October 2-3—Tennessee Valley Medical Assembly, Memorial Auditorium, Chattanooga, Tennessee.

October 2-6—The Hospital Medical Staff Conference, sponsored by the University of Colorado School of Medicine, Estes Park, Colorado.

October 19-21—Medical Society of Virginia, Marriott Twin Bridges Motor Hotel, Alexandria, Virginia.

October 26-28—A Leadership Course for Chiefs of Staff, Hospital Administrators and Governing Personnel (or Trustees), "Today's Hospital Problems: An Interdisciplinary Approach," sponsored by the Mound Park Hospital Foundation and the University of Florida, Tides Hotel and Bath Club, Redington Beach, Fla.

October 27-28—Burn Research Seminar (Eighth Annual), Guest House Motor Inn, Birmingham, Alabama.

May 5-7, 1968—114th Annual Session of the Medical Association of Georgia, Augusta.

Regional

October 19-21—Southeastern Chapter, Society of Nuclear Medicine, Phoenix Hotel, Lexington, Kentucky.

National

August 27-Sept. 1—American Academy of Physical Medicine and Rehabilitation, The Americana, Miami Beach, Fla.

September 1-3—Society for Clinical and Experimental Hypnosis, Washington, D.C.

September 7-9—American Association of Obstetricians and Gynecologists, The Homestead, Hot Springs, Va.

September 15-23—American Academy of General Practice, Dallas.

September 20—Symposium on Acute Leukemia and Burkitt's Tumor, Boston Museum of Science, Boston, Massachusetts, sponsored by the American Cancer Society and the National Cancer Institute.

September 25—Society for Pediatric Radiology, Washington Hilton Hotel, Washington, D.C.

September 25-26—Congress on Occupational Health, The Regency-Hyatt House, Atlanta.

September 26-29—American Roentgen Ray Society, Washington Hilton Hotel, Washington, D.C.

October 5-7—Association of American Physicians and Surgeons, Annual Meeting, Sheraton-Lincoln, Houston, Texas.

October 21-26—American Academy of Pediatrics, Washington Hilton Hotel, Washington, D.C.

October 22-23—American College of Preventive Medicine, Fontainebleau Hotel, Miami Beach, Florida.

October 23—American Association of Poison Control Centers, Washington Hilton Hotel, Washington, D.C.

October 23-27—American Association of Public Health Physicians, Miami Beach, Florida.

October 23-27—American Public Health Association, Fontainebleau Hotel, Miami Beach, Florida.

October 25-28—American Clinical and Climatological Association, The Homestead, Hot Springs, Virginia.

November 26—Ninth National Conference on the Medical Aspects of Sports sponsored by the American Medical Association Committee on the Medical Aspects of Sports, Hotel America, Houston, Tex.

November 26-29—American Medical Association Clinical Convention, Houston, Tex.

THE PIPER'S PRICE

President's Note: *Because the subject matter is so pertinent, I have taken the liberty of reprinting an editorial written by the President of the Fulton County Medical Society as published in the F.C.M.S. Bulletin of June 1967. Dr. Moore was kind enough to allow this reprint—which I highly recommend for reading by the entire MAG membership.* John T. Mauldin, M.D., President, MAG.

ORGANIZED MEDICINE is frequently accused from within and without its ranks of failing to represent the real feelings and policies of its members. There is probably enough truth in the charge to deserve a closer look.

For openers, the recent MAG Annual Session at the Marriott, right here in the Capital City, might serve as a case in point.

Offhand, there would seem to be a lot going for such a meeting here in the Capital City. We're the largest city—with the finest accommodations, the best attractions—and have the best location in terms of travel convenience. Add to this a good name for hospitality, and a built-in base of some 1500 members in our area. There certainly weren't any real problems relative to planning or advertising.

Within the organization the protocol made it mandatory that any subject had to be minutely considered. There is virtually no way that a resolution or policy recommendation can slip by the grinding wheels.

MAG Council, meeting just prior to the House of Delegates, considers a great deal of the material and debates its merits. Council's own report, however, as well as those of the officers, must be reviewed, accepted, rejected, or revised by the House of Delegates before policy is established or fixed.

The Reference Committee, offering a full scale forum to anyone wishing to promote, oppose, or explain any action, is probably the only salvation of the system in terms of the mass of material to be considered.

This system has been recently improved by the addition of MAG staff personnel for secretarial and resource assistance.

With all these favorable factors, how could the organization fail to know the mind of, or reflect the wishes of the members?

The facts are that only 615 physicians—about 15 per cent of the membership—even registered at the meeting. One third of these (or 223) took the trouble to vote in the election of our officers, and 115 hardy souls—about 3 per cent of the total membership and only 70 per cent of the appointed delegates—conducted the business of and formally set the policy of our association.

Despite the numerous safeguards and assurances built into the system to guarantee a voice to anyone —there's no guarantee of a voice. For this specific reason, several items of probable importance were turned aside or delayed. There simply wasn't anyone to speak intelligently to the problem under consideration.

There can be little effective argument against turning down or turning away important decisions when there is an inadequate basis for an intelligent decision. However, this is not necessarily the best way to serve our association, medicine, or our patients.

Can we delude ourselves that we've assigned these responsibilities to someone else and, therefore, we're home free? It's not likely to hold up in the long-run. As a matter of fact, we are paying the piper already. The real question is whether we can afford the price.

William W. Moore, Jr., M.D.
President, Fulton County Medical Society

"George wants to know if it's okay to take his cold medicine now, Doctor, instead of seven o'clock?"

The long-continued action of Novahistine LP should help you both get a good night's sleep. Two tablets in the morning and two in the evening will usually provide round-the-clock relief by helping clear congested air passages for freer breathing. Novahistine LP also helps restore normal mucus secretion and ciliary activity—normal physiologic defenses against infection of the respiratory tract. Use cautiously in individuals with severe hypertension, diabetes mellitus, hyperthyroidism or urinary retention. Caution ambulatory patients that drowsiness may result. Each Novahistine LP tablet contains: phenylephrine hydrochloride, 25 mg., and chlorpheniramine maleate, 4 mg.

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MANAGEMENT OF ACUTE PULMONARY EDEMA

Daniel B. Cox, M.D., *Savannah*

THE ACUTE ONSET of alveolar pulmonary edema is a traumatic and terrifying experience, often for the physician as well as the patient. In its classic form it is rarely a diagnostic problem except possibly in the comatose, asthmatic patient. Prompt, aggressive treatment is usually lifesaving. Although several conditions may serve as causative or contributing factors, impaired myocardial contractibility is the most commonly encountered defect. Treatment is aimed at the following interrelated factors:

1) Allay apprehension and reduce work load on heart.

2) Increase cardiac output.

3) Increase oxygenation.

4) Decrease venous return to heart.

Variances in treatment will, of course, be related to etiologic factors. The majority of episodes will be precipitated by acute myocardial infarction, hypertensive crisis, or chronic, progressive myocardial insufficiency. The following treatment program is not necessarily in order, and many steps may be accomplished simultaneously.

1) Morphine sulphate: 10 to 15 mg., administered slowly *intravenously* remains the cornerstone of therapy. Caution is urged in the emphysematous and asthmatic patient where this drug should be avoided or the dosage markedly reduced.

2) Position: Sitting position unless complicated by shock.

3) Oxygen: Administered by nasal catheter or mask. The use of an intermittent positive pressure apparatus can also be of help if one is cautious to avoid vigorous application.

4) Tourniquets: Rotating venous occlusive tourniquets applied to three extremities and rotated every 15 minutes. Phlebotomy of 300 to 500 cc. may also be beneficial.

5) Aminophylline: 250 to 500 mg. injected intravenously over a 10-minute period is frequently effective in controlling the bronchospasm which is prominent in some patients with acute pulmonary edema.

6) Diuretics: Traditionally mercurial diuretics have been given, not for the acute treatment but to reduce intravascular fluid volume hours later. Recent development of ethacrynic acid (Edecrin) and sodium ethacrynate (Sodium Edecrin) adds extremely potent diuretics to the physician's armamentarium. When rapid diuresis is necessary, 50 mg. of sodium ethacrynate dissolved in 50 cc. of 5 per cent dextrose and water and injected intravenously over a several-minute period will usually promote a vigorous diuresis within 15 minutes. It is apparently well tolerated and free of serious side effects. Caution should be used in its repeated application due to the profound diuretic effect and subsequent loss of electrolytes.

7) Digitalis: The intravenous administration of a rapidly acting digitalis preparation is recommended. Each physician should use the rapid acting preparation with which he is most familiar. In the undigitalized patient, my choice is digoxin 0.75 to 1.0 mg. injected intravenously, followed by 0.25 mg. every two hours until desired response, toxicity, or a total dose of 1.5 mg. is achieved. In the digitalized patient or in one where an adequate history cannot be obtained, the initial dose of digoxin should be reduced to 0.25 to 0.5 mg. intravenously. Attention should simultaneously be given to electrocardiographic monitoring, serum electrolytes, and renal function. It should be emphasized that digitalis is usually secondary in importance to morphine, oxygen, and rotating tourniquets unless rapid supraventricular tachycardia is present. When supraventricular or ventricular tachycardias do not respond readily to usual therapy, cardioversion with synchronized DC countershock should be administered without hesitation in all situations except when the tachycardia is due to digitalis toxicity. Lidocaine (Xylocaine) or procainamide hydrochloride (Pronestyl) administered intravenously are suitable agents for treatment of severe digitalis-induced ventricular tachycardia.

Acute pulmonary edema is a true medical emergency, but fortunately it usually responds well to therapeutic measures which are available.

Memorial Medical Center

Prepared at the request of the Committee on Professional Education of the Georgia Heart Association.

MEDICAL ASSOCIATION OF GEORGIA FOUNDATION

John L. Moore, Jr., *Atlanta*

On April 17, 1967, The Medical Association of Georgia Foundation, Inc., was chartered by the Superior Court of Fulton County, Georgia. The organizational meetings of the Board of Trustees were held on April 29, 1967, at the time of the annual session of The Medical Association of Georgia. The following persons have been named to the original Board of Trustees: John T. Mauldin, M.D., J. Frank Walker, M.D., Charles R. Andrews, Jr., M.D., J. Rhodes Haverty, M.D., Harry D. Pinson, M.D., and L. L. Battey, M.D.

The Medical Association of Georgia joins several other state medical societies which have formed charitable foundations as an adjunct to the activities of the medical society. As most readers will know, medical societies themselves are exempt from federal and state income taxes. Dues paid to medical societies are deductible as a business expense of the individual members. However, contributions to medical societies are not deductible when the contributor computes his own income tax. Therefore, it is extremely desirable to have a separate foundation for charitable activities so that contributions to the foundation will be tax exempt within the limits provided by federal and state income tax laws.

Purposes of The Foundation

The Foundation will be authorized to engage in and carry out scientific research, charitable, educational and scientific activities and projects both in its own name and as agent, trustee or representative of others, and to make contributions to other charities, contributions to which are tax deductible. The Foundation also is specifically authorized to lend financial assistance to needy members of the medical profession and their families, to assist medical students and paramedical students in the pursuit of their education, to administer governmental programs and grants and to accept and hold as assets of the corporation in trust or otherwise consistent with its other charitable purposes.

Application will be made to the Federal Internal Revenue Service and to the Revenue Department of the State of Georgia for rulings as to the tax exempt status of the Foundation and as to the deductibility of contributions to it. There is very little doubt that such rulings will be forthcoming in due course.

Use of the Foundation by Members and County Medical Societies

Of course, many individual members of the Association will want to make contributions to the Foundation. General contributions should be made payable to "Medical Association of Georgia Foundation, Inc." and mailed to the headquarters office of The Medical Association of Georgia.

Another very important feature is the use of the Foundation which can be made by county medical societies. Some county medical societies will undoubtedly have extra funds or will want to undertake some project and solicit contributions for that project. If the local society itself is to provide a safe tax deduction for its contributors to the project the local society must retain legal counsel, charter a new corporation or draw up a trust agreement, and file it with the Internal Revenue Service. Obviously, the overhead cost of this procedure would be prohibitive if the project is fairly small. Now that The Medical Association of Georgia Foundation has been organized the local medical society can simply hand over the money to the Foundation trustees for administering and disbursing according to a written agreement between the local medical society and the Foundation. So long as the project is medical, educative, or scientific and charitable,

the Foundation can receive the funds, no matter how small, and provide assurance to contributors that their deductions will be tax exempt within the limits allowed by the law. Projects can be administered locally as to deciding what the purposes of the project are, who is to make decisions about disbursing the fund, and similar matters provided, of course, the project remains charitable.

The Foundation will have and provide to its contributors and to local medical societies who establish projects as above discussed adequate financial statements and accounting.

County medical societies and others who have questions suggested by this article are urged to correspond with John T. Mauldin, M.D., President of The Medical Association of Georgia Foundation, Inc., or with its Secretary-Treasurer, Dr. J. Rhodes Haverty. Correspondence should be addressed to headquarters office of The Medical Association of Georgia.

Suite 1220
C & S Bank Building

Prepared at the request of The Medical Association of Georgia. Mr. Moore is a member of the firm of Alston, Miller & Gaines, General Counsel to The Medical Association of Georgia.

THE VA REDUCES PAPER WORK FOR THE PHYSICIAN

The Veterans Administration has implemented a simplified procedure, begun July 1, for authorizing each eligible veteran to obtain outpatient medical service from the physician of his choice. An outpatient medical treatment identification card which will be issued to eligible veterans will serve as authority to obtain outpatient care. This procedure will reduce paper work associated with reporting and billing. The veteran will be entitled to outpatient treatment for the conditions recorded on his "I.D." card. Prior VA approval to treat a veteran is not required unless fees for medical and ancillary services which have been recommended by the physician exceed $30.00 per month. Under this procedure the physician will bill the Veterans Administration on his own stationery.

MEDICAL EVALUATION OF THE TOTALLY AND PERMANENTLY DISABLED

One of the categories receiving Public Assistance from the Department of Family and Children Services is Aid to the Permanently and Totally Disabled. Before a disabled person can receive this assistance, there must be a physical examination and report of clinical findings, along with a social report, both of which are reviewed by the Medical Eligibility Section staffed with a practicing physician and medical social workers. (The examining physician is not required to determine that the applicant is totally disabled but simply to report his clinical findings.) The decision as to whether the severity of the disability meets the criteria for eligibility is made by the State Consulting Physician who is an M.D. in private practice working part-time for the State.

Cardiovascular Disease

A great many of the applicants allege cardiovascular disease and the examining physician may give this diagnosis, but unless the examining physician gives an indication of the severity, it is difficult for the State Consulting Physician to determine whether the condition is severe enough to meet the criteria for eligibility. To assist with this problem, the State Consulting Physician requests that examining physicians classify the disability of all cases with cardiovascular disease in accordance with the classification system recommended by the American Heart Association.

Fees Increased

Effective July 1, 1967, the State Department of Family and Children Services has increased the fees to be paid private physicians for examining applicants for Aid to the Disabled and Blind and will now pay usual and customary fees, with a maximum allowable necessitated because of budgetary limitations. With this increased payment for physical and eye examinations, physicians working with the Department of Family and Children Services state that more complete and adequate reports will be expected in the future.

"THE MEDICAL UNITS 'PLANNING GUIDE'" AND "THE BUSINESS SIDE OF MEDICAL PRACTICE" AVAILABLE TO GEORGIA DOCTORS

For the fourth consecutive year, the Medical Association of Georgia is offering to the doctors of Georgia the American Medical Association-Sears, Roebuck Foundation, Inc. booklets entitled, "The Business Side of Medical Practice," and "The Medical Units 'Planning Guide.'" The material is free of charge and either or both may be obtained by writing to the *MAG Headquarters Office, 938 Peachtree St., N.E., Atlanta, Ga. 30309.*

Each booklet, constructed of heavy vellum stock, measures approximately 12″ × 9″ and contains charts, graphs, illustrations, floor plans, etc. Both are made for easy handling and make a nice addition to a doctor's office library.

MENTAL HEALTH PAGE

SYMPTOMS

J. Kenneth McDonald, M.D., *Augusta*

SEVERAL DIFFERENT APPROACHES can be taken to psychiatric symptoms. First of all the physician can be "analytical" and try to "analyze" the etiology of the symptoms (where did the symptoms come from?—what has happened to the patient in the past?). The second approach is to focus one's efforts on the symptoms themselves with the use of drugs, shock therapy, cheer up, calm down, do this and don't do that techniques (what is the symptom doing in the here and now and what can the physician do to alleviate the patient's suffering?). A third and often neglected aspect of psychiatric symptoms is that of what are the symptoms leading to (what will happen to the patient in the future as a result of his symptoms?). This last aspect is many times referred to as the secondary gain which the patient is obtaining. The term secondary may be misleading as this may be of primary importance.

It appears that at times the general public and at times psychiatrists, too, are preoccupied with the first of these three questions. "What caused this, Doc? Something in his mind must make him sick, do poor in school, drink, have temper tantrums, run around. You've got to find out what makes him do this." The refusal to attend the symptoms until the cause is known can result in disaster.

Physicians, on the other hand, too often are preoccupied with the second question to the exclusion of other considerations. "I will sober him up, give him a tranquilizer, pain pill, rest in the hospital, appetite depressant."

Attempts to answer the third question will many times be much more rewarding and can give important clues to help decide answers to the first two questions. The best approach with psychological or physical symptoms would be to maintain one's diagnostic and therapeutic balance in regards to these three questions. A reasonable approach would not be to refuse, for instance, to suture the bleeding artery because it is not known how the patient came to have his throat cut nor would one continue to give Demerol for chest pain and ignore the underlying coronary artery disease. Likewise he will not "give up" and do nothing for a patient because the patient's disease is going to kill him sooner or later anyway, no matter what is done. The same thinking should be applied to psychological problems with attempts to give appropriate attention to these three aspects of the patient's difficulties.

A future article will attempt to explore further the third aspect of patients' psychological symptoms in terms of "where are the symptoms going."

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Prepared at the request of the Sub-committee on Mental Health of the Medical Association of Georgia.

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OCCUPATIONAL HEALTH AND THE GENERAL PHYSICIAN

Take advantage of the opportunity to exchange ideas with others engaged in Occupational Health Activities and stay in one of the finest hotels in the south. The 27th Annual AMA Congress on Occupational Health will be held at the Regency Hyatt House in Atlanta, September 25-26, 1967.

Milford O. Rouse, M.D., President of the AMA, will deliver the Congress' Opening Address Monday. Subjects to be discussed during the Congress include: Small Plant Problems; Responsibility of Physicians in Off-The-Job Accident Prevention; Screening in Occupational Medicine; Occupational Health in Agriculture; Epidemiology in Occupational Medicine; Cooperation Between Medical Societies and Workmen's Compensation Administrators; Psychological Problems in Occupational Medicine; Alcoholism in Industry; Recognizing Psychiatric Emergencies.

Among the speakers are George D. Purvis, M.D., Jackson, Mississippi; Harry E. Tebrock, M.D., New York; Hugh A. Matthews, M.D., Canton, N.C.; Wayland J. Hayes, Jr., M.D., Atlanta; Milford O. Rouse, M.D., AMA President; John MacIver, M.D., Pittsburgh; M. Roscoe Lowery, Atlanta.

Presentation of the Annual Physician's Award for contributions to the handicapped will be made by the President's Committee on Employment of the Physically Handicapped during a Congress luncheon.

For additional details, write: Council on Occupational Health, American Medical Association, 535 North Dearborn, Chicago, Illinois 60610.

SCHOOL FOR ASTHMATIC CHILDREN ACCEPTING STUDENTS FOR FALL TERM

The National Foundation for Asthmatic Children is now accepting students for the fall program at its Sahuaro School, a boarding and day school for asthmatic children at Tucson, Arizona.

Sahuaro accepts students from grades 1 to 8. For 12 years a boarding school, the rehabilitation center has broadened its scope and is adding a day school in the fall.

A non-profit, non-sectarian organization, the Foundation announced recently that parents will be responsible for a greater share of the cost than has been true in the past. Clubs, churches and organizations in the home community may sponsor a child.

The school-rehabilitation center is located seven miles West of downtown Tucson on a 600 acre campus. The school is in an ideal location to capture the fresh air and the warm Arizona sun.

There is capacity for 72 students in the boarding program. In addition to special education needed by most chronically ill children because most have missed a great deal of school, there is a strong physical education program and expert medical management.

Those interested in information regarding the school and its program are asked to contact the Foundation, P.O. Box 5114, Tucson, Arizona 85701.

DEKALB COUNTY MEDICAL SOCIETY ANNOUNCES LOANS, SCHOLARSHIPS

The DeKalb County Medical Society has announced that several loans, grants and scholarships are now available to DeKalb County residents to provide training in para-medical fields and post-graduate medical work. The funds are available from the DeKalb County Medical Education Trust, set up recently by the Society with excess funds collected during the DeKalb County Polio Sabin-on-Sunday Immunization Program.

EASTER SEAL SOCIETY ISSUES GUIDE TO SUMMER CAMPS FOR HANDICAPPED

A comprehensive guide to summer camps for handicapped children and adults has been issued by the Easter Seal Society (National Society for Crippled Children and Adults).

The "Directory of Camps for the Handicapped," prepared in cooperation with the American Camping Association, gives detailed and up-to-date information about 250 camps which provide therapeutic recreation and training for the disabled.

Only camps which have specific programs for persons with physical, mental, social or emotional handicaps are listed in the guide. The listing does not include camps that accept children or adults with mild handicaps in their regular programs, but covers those camping facilities primarily designed for the disabled.

Facts about each camp, such as impairments accepted, fee, dates and address for inquiry, are listed for 176 residential camps and 74 day camps.

Copies of the guide are available at $1 per copy. Direct request to Dr. L. J. Hardt, National Society for Crippled Children and Adults, 2023 West Ogden Avenue, Chicago, Illinois 60612.

"DRUGS ANONYMOUS"

The importance of identifying the origin of prescription drugs which people take is stressed in "Drugs Anonymous," a 15-page pamphlet published by the Pharmaceutical Manufacturers Association.

This pamphlet discusses the naming of drugs and drug products, the role of official compendia, results of many drugs studies, and the importance of manufacturer identification in support of the concept of quality in the prescribing and dispensing of prescription medications.

"Drugs Anonymous" is a revised edition of a 1966 policy statement by PMA, entitled "Compulsory Generic Prescribing—A Peril to Our Health Care System." Over 40,000 copies of the earlier statement were printed and distributed.

In the new pamphlet, PMA states its position in the controversy evident in current discussions on "brand" and "generic" drug prescribing.

Additional copies can be obtained from PMA's Public Information Office, 1155 Fifteenth Street, N.W., Washington, D. C. 20005.

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THE ASSOCIATION

DEATHS

James Howard Hagan, 52, of Oxford, Alabama, formerly of Rockmart, Georgia, died suddenly June 9, 1967.

Dr. Hagan interned at Piedmont Hospital, Atlanta, and Macon General Hospital, Macon, and served as a captain for five years during World War II. He was a member of the American College of Surgeons, Medical Association of Georgia, and was former Chief of Staff of the Polk County Medical Society.

Survivors include two daughters, Sandra and Rena Hagan, both of Rome; two brothers, Forrest L. Hagan of Cedartown and Alton P. Hagan of Sonoma, California; and one sister, Mrs. Heslip H. Sorrells of Marietta.

SOCIETIES

The Bibb County Medical Society heard Dr. James B. Landis, Associate Director of Clinical Services at Smith, Kline and French Laboratories in Philadelphia, speak June 6 on drug research. Dr. Landis said a single drug will cost nearly $5.5 million and take six or seven years to carry through the process of experimentation.

PERSONALS

J. Daniel Thompson, Atlanta, and **John Barkwell Thompson,** Columbus, left in mid-June for two months' volunteer service with Project HOPE's teaching-treatment mission to Cartagena, Colombia.

Haywood N. Hill of Atlanta has been elected President of the Georgia Heart Association for fiscal 1968, and **Simone Brocato** of Columbus has been elected President-Elect. Other officers are **Thomas D. Johnson,** Albany, Vice President; **Richard H. Horsey,** Atlanta, Vice President; **Dan Burge,** Atlanta, Secretary; and **Carter L. Redd,** Atlanta, Treasurer.

First District

Robert L. Pence of Metter and **Joseph Pacifici, A. F. Williams,** and **Robert J. Marsh** of Savannah attended a meeting of Local Advisory Group Chairmen for the Georgia Regional Medical Program in Atlanta on June 4.

Fifth District

Joseph Yampolsky of Atlanta, a pediatrician who has been practicing fifty years, was honored recently at Georgia Baptist Hospital for his outstanding service there. The honor was in the form of a lecture by Dr. Marvin Cornblath, Professor of Pediatrics at the University of Illinois School of Medicine.

J. D. Martin, Jr., was elected President of the Atlanta Blue Shield Plan for Physicians' Services at the regular board meeting held in late May. Other newly elected officers are **Edwin C. Evans,** Vice President, and **Edward L. Bosworth,** Treasurer. **Haywood N. Hill, George S. Roach, Jr.,** and **R. J. Van De Wetering** are new Board Members.

Joseph A. Wilber, associate director of the State Health Department's Cardiovascular Disease Control Service, Atlanta, appeared before members of the House Appropriations Committee in Washington on June 6. Dr. Wilber and specialists from other parts of the country appeared for the National Heart Institute in an effort to secure additional federal funds for heart disease control. He described the results of a door-to-door survey of hypertension and heart disease conducted as part of a community control program in Baldwin County from 1963 through 1966.

The American Psychiatric Association honored **Frank Casey** and **Ilhan Ermutlu** of Atlanta at their recent meeting in Detroit. Dr. Casey, Director of the Georgia Mental Health Institute, was named a life fellow of the Association and Dr. Ermutlu, Director of Community Service Branch and an assistant director of the Division of Mental Health, was elected a fellow.

Seventh District

Jack Gent of Calhoun attended a meeting of Local Advisory Group Chairmen for the Georgia Regional Medical Program held in Atlanta June 4.

R. T. Jones of Kitchens Clinic and Hospital in Lafayette has been elected to active membership in the American Academy of General Practice.

Eighth District

Leonard C. Durrence of Blackshear has been named to represent the City of Blackshear on the Slash Pine Area Planning and Development Commission.

Gene T. Blakely and his son Eddie took a trip described as "way out and way up yonder" to California and Northwest Canada on a motorcycle. They left June 13 for the three-week trip.

Ninth District

W. R. Dunn of Cumming attended a meeting of Local Advisory Group Chairmen for the Georgia Regional Medical Program in Atlanta on June 4.

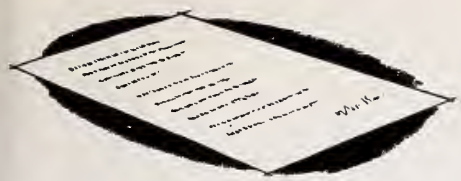
Amos A. Smith has joined **H. G. Long** in practice at the Long Medical Center at Dahlonega. Dr. Smith is a graduate of the Medical College of Georgia and completed his internship at Floyd Hospital in Rome.

Tenth District

Charles C. Wike and **Charles H. Wray,** both of the Medical College of Georgia, Augusta, and both general surgeons are on a two-month tour of volunteer service to the civilian population of South Viet Nam under the auspices of the AMA Volunteer Physicians for Viet Nam program.

They will serve in the civilian hospital at Da Nang under a special arrangement by which the Medical College of Georgia and the Medical College of South Carolina alternately furnish teams of surgeons for the hospital.

Dr. Wray is an assistant professor in the Department of Surgery and Dr. Wike is a resident in surgery.



ABSTRACTS BY GEORGIA AUTHORS

Garrison, Glen E., M.D.; Floyd, Walter L., M.D., and Orgain, Edward S., M.D., Dept. of Continuing Medicine, Medical College of Georgia, Augusta, Ga., "Exercise in the Examination of Peripheral Arterial Disease," Annals of Internal Medicine 66:587-593(March)1967.

Clinically significant peripheral arterial insufficiency is frequently not manifested by the usually emphasized findings—intermittent claudication, absent pulses, delayed venous filling, pallor of the elevated foot, dependent rubor, ischemic ulcer, and gangrene. When such findings are either absent or inconclusive, careful physical examination that includes palpation of all pulses, auscultation of accessible arteries, and notations of skin color before and more especially after exercise of the extremity will frequently provide evidence indicative of arterial insufficiency in an extremity.

Normally no arterial murmur is audible. A systolic murmur over a femoral or subclavian artery may or may not be associated with a clinically significant arterial stenosis. However, if a systolic murmur extends into diastole after exercise of the corresponding extremity, the patient has significant arterial stenosis in the region of the maximum intensity of the murmur. In the presence of severe arterial stenosis with poor collateral circulation, the systolic murmur may extend into diastole while the patient is at rest. No murmur is audible over a totally occluded artery. If prominent arterial stenosis exists in the major artery to an extremity, strong pulses may be present while the patient is at rest and may become impalpable after exercise, and associated pallor of the skin over the distal part of the extremity will usually develop.

Clinically significant arterial insufficiency in the arms is more common than generally appreciated, and observation of post-exercise changes is frequently necessary to establish the diagnosis and in particular to differentiate this condition from angina pectoris which also frequently causes discomfort in the arm following exercise.

Saneman, Paul P., M.D. and Greenblatt, Robert B., M.D., Dept. of Endocrinology, Medical College of Georgia, Augusta, Ga., "Why a Sequential Contraceptive Pill?" Current Medical Digest 3:387-402(March) 1967.

There is a place for the sequential form of the contraceptive pill, without in any way detracting from the general value of the combination regimen. Both forms are extremely effective contraceptive regimens, with results approaching 100% when they are taken according to directions. Some patients who cannot take one form of contraceptive pill may be able to tolerate another form. Fewer annoying side effects have been noted with the sequential form, which adds to the value of this regimen.

Although the most important function and most common use of the pill is for contraceptive purposes, one must not lose sight of the fact that many gynecologic disorders may be managed successfully by employing either the combination or the sequential regimen of the pill.

The sequential form may be used to advantage in the treatment of acne, amenorrhea, dysmenorrhea, particularly membranous dysmenorrhea, hirsutism in the adolescent girl, oligomenorrhea, hypomenorrhea, mittelschmerz, severe premenstrual tension and the menopause. The combination regimen is preferable in dysfunctional uterine bleeding, endometrial hyperplasia, endometriosis, hypermenorrhea, mastodynia and mazoplasia.

Swanson, Ernest J., Ph.D.; Millians, W. Swanson, M.D.; Soutus, Peter C., M.D.; Skandalakis, John E., M.D., and Gray, Stephen W., Ph.D., Dept. of Anatomy, Emory Univ., and Dept. of Surgery, Piedmont Hospital, Atlanta, Ga., "Liver Cell Regeneration and Degeneration After Lobar Biliary Obstruction in Dogs," The American Journal of Gastroenterology 47:280-286(April)1967.

Fourteen dogs were used in this study. An attempt was made to measure liver regeneration after lobar biliary ligation by means of mitotic counts, and to estimate liver cell destruction by histochemical localization of the enzyme 5-nucleotidase.

With ligation of the hepatic duct from one lobe of the liver in the dog, typical degenerative changes are observed in the ligated lobe after 120 days.

Histochemical sections, stained for the enzyme 5-nucleotidase, showed moderate enzyme activity in the normal liver and in the nonligated lobe of the experimental liver. In the ligated lobe the enzyme activity of the surviving hepatic cells was greatly increased. This increase is probably due to increased cell destruction in the ligated lobe.

While some mitoses are present in the normal liver, mitotic indices rose to twice normal in the ligated lobe and to four times normal in the nonligated lobes.

Lindsay, Joseph, Jr., M.D., and Hurst, J. Willis, M.D., Dept. of Medicine, Emory Univ. School of Medicine, Atlanta, Ga., "Clinical Features and Prognosis in Dissecting Aneurysms of the Aorta," Circulation 35:880-888 (May)1967.

The records of 62 patients in whom the diagnosis of aortic dissection was proved were reviewed with particular attention to the clinical features and prognosis in each case.

The patients were divided into two groups based upon the presence or absence of involvement of the ascending aorta by the dissection. Two distinct syndromes emerged. Aortic regurgitation was detected in 50% (20 of 40) of patients with involvement of the ascending aorta. Alterations of the arterial pulses, hypotension, and neurologic signs were common in this group. Only 5 of 40 such patients had none of these findings. In contrast, 15 of 19 patients whose dissection spared the ascending aorta lacked these findings.

Prognosis was also quite different for the two groups. Eight of 19 patients whose disease began distal to the arch of the aorta are known to have survived 6 to 69 months even though 6 of the 8 were not operated on. On the other hand, no patient in whom the ascending aorta was involved was known to survive longer than 3 weeks. All of the latter group died of their aortic dissection.

Present analysis of surgical and medical therapy does not take into account this difference in survival.

Perdue, Garland D., Jr., M.D., Dept. of Surgery, Emory Univ. School of Medicine, Atlanta, Ga., "Mycotic Aneurysm Associated with Urinary Tract Infection," The American Journal of Surgery 113:710-712(May)1967.

Two cases of primary mycotic aneurysm associated with bacteremia from urinary tract infections are described and illustrate that such lesions follow bacteremia from an extravascular source. These cases are unique in being the first recorded in association with urinary tract infections due to gram negative organisms.

Wilkinson, Tolbert S., M.D. and Stone, H. Harlan, M.D., Dept. of Surgery, Emory Univ. School of Medicine, Atlanta, Ga., "Intestinal Volvulus Without Malrotation in a Four-Month-Old Infant," The American Surgeon 33:365-366(May)1967.

A case of midgut volvulus in a four-month-old infant without malrotation of the intestinal tract is presented, including preoperative, operative, and postoperative findings. A review of the literature as well as a summary of the embryology is included. Small intestinal volvulus in the absence of malrotation is extremely rare, occurring in utero usually with death of the newborn infant. No cases have been found in infants after a period of normal development. Commentary and theory regarding the in utero occurrences and the present case are presented.

Walker, L. G., Jr., M.D., Dept. of Surgery, Emory Univ. School of Medicine, Atlanta, Ga., "Intramedullary Spinal Cord Metastasis from Carcinoma of the Colon," The American Surgeon 33:422-424(May)1967.

The second case of a patient with carcinoma of the colon to develop an intramedullary spinal cord metastasis is reported. While metastases to vertebrae and the extradural spinal cord are common from various malignancies, intramedullary metastases are rare. Diagnosis of intramedullary metastases should be suspected when there is paraplegia of sudden onset with no pain, and with normal diagnostic studies including lumbar puncture and myelogram. There is no satisfactory therapy at present for this condition.

Mansouri, Kamal A., M.D. and Letton, A. Hamblin, M.D., Dept. of Surgery, Georgia Baptist Hospital, Atlanta, Ga., "Adenocarcinoma of the Parathyroid Gland: Review of the Literature and Report of One Case," The American Surgeon 33:378-381(May) 1967.

Review of the world literature concerning malignancy of the parathyroid gland has been presented. Approximately 50 cases are reported. Difficulties of precise diagnosis are due to the similar histology of thyroid, parathyroid, thymic and lymph node malignancies. However, an equivocal diagnosis can be made if metastases are found either at the time of the original operation or at a later date. Emphasis is also laid upon the association of a dense fibrous inflammatory-like reaction surrounding the tumor and binding it firmly to adjacent structures.

Parathyroid carcinoma has an equal sex incidence, high serum calcium values, is larger and therefore more palpable than parathyroid adenoma.

The case reported is a 58-year-old white female admitted with the chief complaint of pain in both legs and inability to walk. Physical examination revealed a hard mass in left lower lobe of thyroid gland. Serum calcium was elevated. Serum phosphorus was normal due to an associated bilateral renal disease. Characteristic radiological bone changes were present.

At operation a left thyroid lobectomy was done for a calcified mass in the left lower lobe. The left recurrent nerve was firmly adherent and had to be sacrificed. Histological examination showed marked lymphatic invasion within the capsule and in surrounding tissues.

The patient was followed for one year post-operatively and there was no evidence of local or general metastases.

Symbas, Panagiotis N., M.D.; Schlant, Robert C., M.D.; Logan, Wm. D., Jr., M.D.; Lindsay, Joseph, M.D.; MacConnell, Keith L., M.D., and Zakaryia, Majed, M.D., Emory Univ. School of Medicine, Atlanta, Ga., "Traumatic Aorticopulmonary Fistula Complicated by Postoperative Low Cardiac Output Treated with Dopamine," Annals of Surgery 165:614-619(April)1967.

A. L., a 32-year-old male, was admitted to Grady Memorial Hospital after being stabbed with a knife twice in the left anterior chest. On admission his pulse and arterial pressure were normal, the breath sounds were decreased in the left base, the heart sounds were normal and no murmur was heard. A thoracotomy tube was inserted in the left pleural space and 700 to 900 ml. of blood drained immediately into the watersealed bottle. During the next two days additional 1000 ml. of blood fluid drained from the left pleural space. His hematocrit on admission was 25% and rose to 33% after 2000 ml. of whole blood were given. The central venous pressure on admission was 20 cm. of H_2O but no pulsus paradoxus was present. Chest roentgenography on admission showed no cardiomegaly, but on the 8th hospital day it demonstrated some cardiac enlargement. Again the heart sounds were normal, no pulsus paradoxus was present and no friction rub or murmur could be heard. On the 11th hospital day chest roentgenography and cardiac fluoroscopy revealed an enlarged globular heart pulsating poorly and a three component pericardium friction rub was heard for the first time. On the 12th hospital day he developed hepatomegaly and the venous pressure was 24 cm. of H_2O. A Grade III continuous murmur was heard for the first time over the more medial stab wound and again no pulsus paradoxus was present. A pericardiocentesis yielded 200 ml. of bloody fluid and the patient was digitalized. On the 14th hospital day right heart catherization was done. The pulmonary blood flow was 2 times the systemic and the right ventricular oxygen saturation was 57% and the pulmonary artery saturation 73%. Ascending aortogram showed opacification of the pulmonary artery. With the use of the cardiopulmonary bypass and hypothermia an 8 to 9 ml. in diameter fistula between the main pulmonary artery and ascending aorta was closed.

The patient's postoperative course was complicated with low cardiac and urinary output. Ten hours after surgery the urinary output dropped to 0-15 ml./hour, the arterial pressure, measured directly, fell to 78/68 ml./Hg. Mannitol and additional digoxin were administered with no improvement and the central venous pressure rose to 22 to 25 cm. of H_2O. Slow intravenous infusion of dopamine was started in doses of 1-8 μg./kg./minute which resulted in an increase of blood pressure, decrease in venous pressure to 12 cm. of H_2O and prompt diuresis. Two attempts in the next 51 hours to discontinue the dopamine infusion resulted in hypotension and marked reduction in urinary output. Fifty-one hours after dopamine was started the dopamine was discontinued with no decrease of arterial pressure but with reduction of urinary output. Intravenous infusion of 500 mg. aminophylline in 250 ml. D5/w was associated with prompt resumption of normal urinary output. The aminophylline was discontinued 2 hours later and the subsequent course was uneventful.

The possible mechanism of the development of the traumatic aorticopulmonary fistula, the treatment and the reasons for the choice of this sympathomimetic amine, dopamine, are discussed.

Four additional cases with traumatic aorticopulmonary fistula successfully repaired have been so far reported.

Hatcher, Charles R., Jr., M.D.; Abbott, Osler A., M.D.; Logan, William D., Jr., M.D., and Patterson, Joseph H., M.D., Emory Univ. School of Medicine, Atlanta, Ga., "Tracheostomy in Infancy and Childhood," Southern Medical Journal 60:411-415(April)1967.

This study details the authors' experience with 100 consecutive tracheostomies performed from 1960-1966 at The Henrietta Egleston Hospital for Children. Tracheostomy was indicated by one or more of the following conditions: 1) Obstruction of the upper airway, 2) Disease of the central nervous system, 3) Problems in secretions, 4) Postoperative management, 5) Resuscitation.

In 33 patients, tracheostomy was required by obstruction of the upper airway secondary to 1) inflammation, 2) tumor, 3) trauma, 4) congenital anomaly, and 5) postoperative hemorrhage. Only 2 of 33 patients (6%) were lost from either the airway obstruction or the underlying disease.

Thirty-three patients required tracheostomy for disease of the central nervous system. The ultimate survival depended almost entirely upon the basic disease present.

Tracheostomy for aspiration and irrigation of the tracheobronchial tree was required in 14 patients with pulmonary sepsis. This group included patients with staphylococcal pneumonia and fibrocystic disease. All of the patients in the pneumonia group survived. Eight patients or 54% of this group ultimately died from the progression of fibrocystic disease.

Tracheostomy as a part of postoperative management was performed for pulmonary suppuration and correction of certain cardiac defects. Ten of the 13 patients survived their surgical procedure and subsequent closure of the tracheostomy.

In 9 patients tracheostomy was performed to permit removal of an endotracheal tube which had been placed in the resuscitation of a respiratory and/or cardiac arrest. Eight or 89% of these patients did not survive.

The technique of ideal tracheostomy and tracheostomy care was presented in detail.

Complications of tracheostomy included displacement, pneumothorax, subcutaneous emphysema, hemorrhage, difficulty in removal, erosion of an innominate artery. All of these complications were managed successfully but contributed to patient morbidity.

Tracheostomy is a life saving procedure in many instances. When properly managed, tracheostomy itself should not be a contributing factor to mortality. An occasional infant will have difficulty in removal of the tracheostomy if there is a congenital abnormality involving the airway.

JOURNAL OF THE MEDICAL ASSOCIATION Georgia
SEPTEMBER / 1967

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JOURNAL OF THE MEDICAL ASSOCIATION Georgia

Current Clinical Concepts

A REVIEW OF CURRENT CONCEPTS REGARDING INTRACRANIAL SACCULAR ANEURYSMS*

Marshall B. Allen, Jr., M.D., *and* William H. Meeks, M.D.,** *Augusta*

Part I—Introduction and Etiology

CEREBROVASCULAR DISEASE is listed as the third cause of death in the United States, accounting for over 11 per cent of deaths.[31] Morbidity is even more common. It is estimated that spontaneous intracranial hemorrhage accounts for 25 to 30 per cent of strokes.[44] A classification of intracranial bleeding drawn up by an ad hoc committee sponsored by the National Institute of Neurological Diseases and Blindness[1] includes the following categories: A. Trauma; B. Hypertensive Intracerebral Hemorrhages; C. Ruptured Saccular Aneurysms; D. Angiomas; E. Hemorrhagic Disorders (leukemia, aplastic anemia, thrombopenic purpura, liver diseases, complication of anticoagulant therapy, etc.); F. Hemorrhage into Brain Tumors; G. Septic Embolism; H. Hemorrhagic Infarction; I. Brain Stem Hemorrhage Secondary to Temporal Lobe Herniation; J. Hypertensive Encephalopathy; K. Idiopathic Brain Purpura; L. Inflammatory Disease of Arteries and Veins; and M. Subarachnoid Hemorrhage of Undetermined Etiology.

This report reviews recent progress related to intracranial saccular aneurysms. A prodigious literature concerning the subject has accumulated over the last half century and yet there are great voids in our knowledge regarding the etiology and the best forms of therapy for these lesions. In this report we do not presume to be comprehensive but will endeavor to summarize that information which might be of interest to the practicing physician.

* *Supported, in part, by USPHS Grant No. NB 04345.*
** *From the Divisions of Neurological Surgery, Medical College of Georgia and Veterans Administration Hospital, Augusta.*

The National Institute of Neurological Diseases and Blindness, in recognizing the importance of subarachnoid hemorrhage as a cause of death and morbidity, is now sponsoring a cooperative study of intracranial aneurysms and acute subarachnoid hemorrhage. Working together are 20 medical centers in the United States and England, one of which is the Medical College of Georgia. Results of the initial phase of the study have been published during the past year and a large portion of the present report will be drawn from this material.

Saccular aneurysms occur most constantly at the base of the brain, primarily those vessels forming the Circle of Willis and its major branches. The approximate frequency at the various locations is as follows:[44]

Internal carotid artery	33%
Anterior cerebral or anterior communicating artery	30%
Middle cerebral artery	20%
Posterior fossa	4%
Multiple	14%

Although no age group is immune, the majority of the lesions occur in the fourth, fifth, and sixth decades of life. Sex distribution is approximately equal. The distribution among races parallels the national population.[44]

ETIOLOGY

The etiology of intracranial saccular aneurysms remains in doubt. Review of the literature reveals numerous proposed causes which may be divided

into congenital and acquired. Congenital etiologies may include selective weakness of intracranial blood vessel walls due to morphological differences as well as residual vestiges of embryonic vessels, medial defects and splitting of blood vessels at bifurcations. Among the acquired etiologies which will be reviewed are inflammatory causes, arteriosclerotic lesions, hypertension, and hemodynamic effects. As will be indicated, we believe that several of these factors may play a part in the production of these explosive lesions.

A review of the morphological differences between intracranial blood vessels and those vessels of systemic circulation may contribute to one's understanding of the etiology of intracranial aneurysms. (See Figure 1.) Medium sized systemic arteries are composed of three coats: 1. The intima consists of a layer of endothelial cells overlying a thin layer of collagenous fibers which is surrounded by the internal elastic membrane. 2. The media is composed of a thick layer of smooth muscle fibers arranged in a circular or spiral pattern with integrated reticulum and elastic connective tissue fibers. 3. The adventitia surrounds the media and is composed of an inner layer of elastic fibers most of which course longitudinally (external elastic membrane), and an outer layer of connective tissue.

Intracranial Arteries

Intracranial arteries differ from similar sized systemic blood vessels in the following characteristics:[7] Grossly, the vessels are much thinner, appearing similar to veins. Microscopically, the internal elastic membrane is well developed while elastic fibers are not so common in the media as in systemic vessels and there is a striking decrease of the elastic fibers in the adventitia which is usually quite thin. Goettler[19] noted that cerebral arteries closely resembled systemic vessels of the same size at birth and that there is a progressive differentiation in the early years of life. Ask-Upmark[5] demonstrated that the pulse-amplitude was reduced in the closed cranial cavity.

Recently Hassler[23] has performed a series of craniectomies in infant rabbits and compared the intracranial arteries of the animals with litter mates in which the cranium was left intact. Comparisons were made in the blood vessels taken from animals sacrificed at comparable ages. Cerebral arteries from adult animals in which craniectomies had been performed in infancy more closely resembled systemic vessels of similar size than did intracranial vessels from control animals.

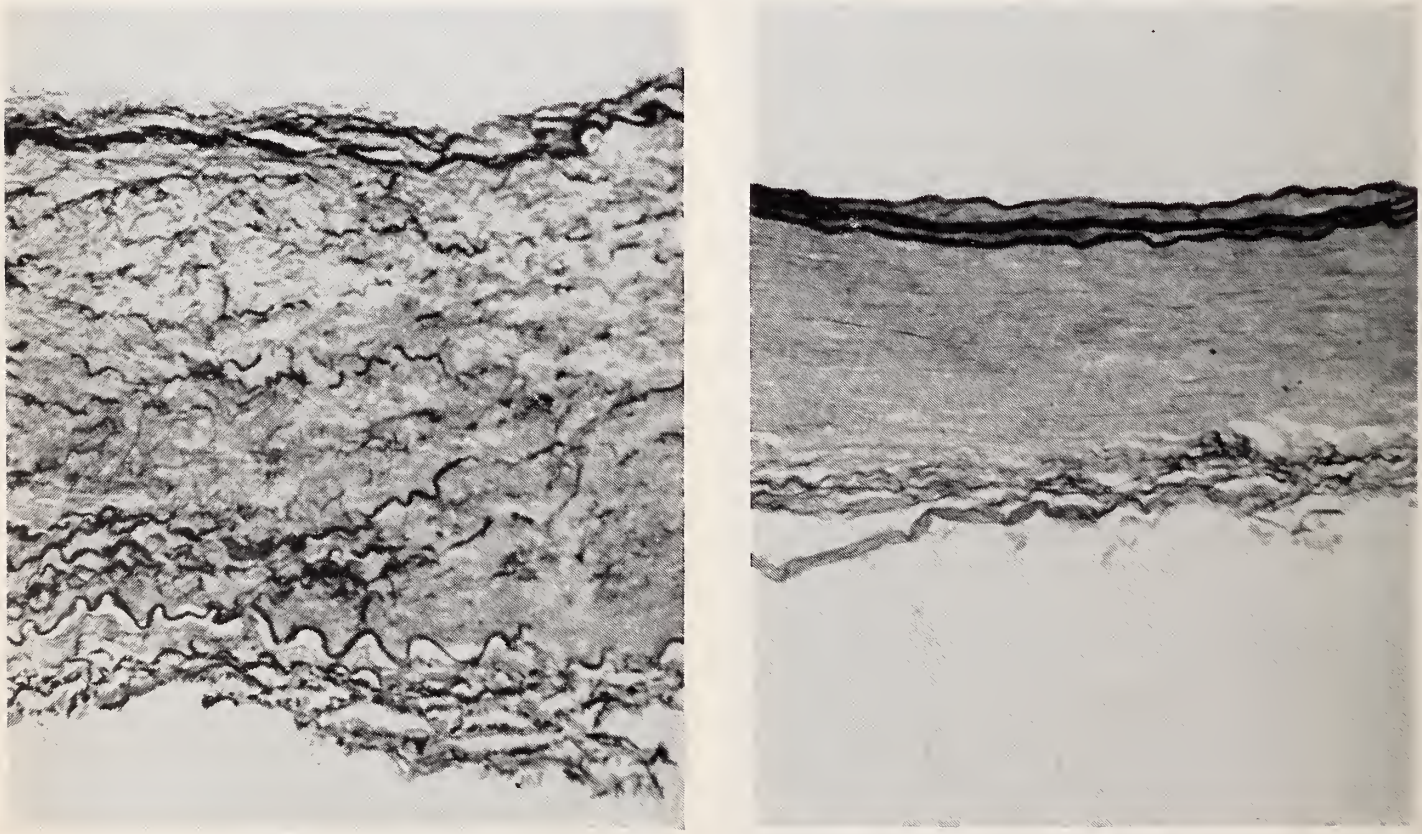


FIGURE 1, a AND b

The wall of an extracranial portion of the vertebral artery (a) compared to a section of posterior communicating artery (b) with approximately the same lumen size. Elastic fibers are stained with resorcin-fuchsin. Note the concentration of elastic fibers at the junction of the adventitia and the media and the numbers of elastic fibers dispersed throughout the media of the systemic vessel whereas elastic fibers in the intracranial vessels, with few exceptions, are limited to the intimal coat of the vessel. This feature was noted even when extracranial and intracranial segments of the same vessel were compared. The difference in the thickness of extracranial and intracranial vessels is probably overemphasized in this illustration, but the walls of systemic vessels are usually thicker than intracranial vessels with similar sized lumena. Resorcin fuchsin-vangeison.

These findings may lead one to conclude that the limited thickness of intracranial vessels may be an acquired feature based upon the protective mechanism of the cranium. Nevertheless, the reduced amount of connective tissue fibers in the walls of the intracranial vessels of adults implies decreased strength of such vessels when they are compared to systemic vessels of similar size.

Other Congenital Explanations

Other *congenital* explanations for the occurrence of intracranial aneurysms have generally fallen into three groups. First, and probably most prevalent, is that these lesions occur as a result of incomplete resorption of embryonic vessels.[8, 11, 17, 36, 40] Support for such an hypothesis is received from the knowledge that aneurysms are known to be most common in areas where the massive plexuses of embryonic vessels originally lay. Also, defects in the media of intracranial blood vessels are seen frequently in these locations.[17, 24] Against this hypothesis is the fact that symptoms of such lesions are rare in the first two decades when congenital defects would typically give clinical symptoms, and that aneurysms are now known to have appeared on blood vessels in which earlier angiograms had failed to demonstrate such lesions.

Defects in the muscular layer of the blood vessel walls were postulated as a cause for the development of intracranial aneurysms by Forbus in 1930.[17] He demonstrated that failure of muscular development frequently occurred at the bifurcation of blood vessels in various parts of the body and ascribed it to failure of the two separately developing muscle coats to fuse properly. However, Glynn[18] has demonstrated that blood vessels may withstand intravascular pressures as high as 600 mm. Hg. when they are stripped of their muscular layer if the internal elastic layer remains intact.

A third hypothesis, which implies congenital influence in the etiology of aneurysms, is that vessels are spread apart at bifurcations by the developing brain.[11] Indeed, careful measurements of the angles have revealed that intracranial vessels do widen as the brain develops. Aneurysms occur more commonly at the bifurcations of vessels at the base of the brain and they occur at the same vessel bifurcations which are affected most by brain growth. In addition it is at these sites that defects in the walls are seen in otherwise normal blood vessels. The obvious objection to this explanation for the etiology of aneurysms again lies in the fact that such lesions are rarely seen before the third decade.

Inflammatory Causes

Syphilis was once regarded as important in the pathogenesis of intracranial aneurysms but is rarely seen associated with such lesions at the present. Other inflammatory agents have also been suggested.[50] Macrophages, lymphocytes, and even polymorphonuclear leukocytes are frequently seen in the aneurysm walls.[43, 47] However, most investigators today feel that there is little evidence to support inflammation as a casue of aneurysmal formation or rupture except in the case of mycotic lesions.

Atherosclerotic Causes

Intimal thickening is not infrequently seen in cerebral vessels in the region of aneurysms.[23, 47, 48, 50] Atherosclerotic plaques have been blamed for producing medial and/or elastic tissue degeneration contributing to aneurysmal formation.[43, 50] Indeed atherosclerotic plaques may be seen frequently completely surrounding the base of an aneurysm. Hand and Chandler[21] have shown that thrombus formation is frequently the first step in the development of an atherosclerotic plaque. Mustard and co-workers[33, 34, 35] have "demonstrated that thrombi tend to accumulate at points of disturbed flow, particularly at vessel bifurcations and orifices." This makes it tempting to postulate that associated intimal thickening and even atherosclerotic plaques might be the result of turbulent blood flow associated with aneurysmal formation rather than the etiology of aneurysms. Schmidt in 1930 stated[45] "In my material there is a series of aneurysms with arteriosclerotic changes but whether the aneurysm or the arteriosclerosis is primary is not easy to determine." Induced thrombosis of aneurysms has been recommended as one form of therapy.[32]

Hypertension

The role of hypertension in the etiology of saccular intracranial aneurysms is not clear. Primary hypertensive intracerebral hemorrhage is second only to trauma as a cause of subarachnoid hemorrhage[29] and Mayer and Bauer[30] have stated that "it seems evident that hypertension is the most important pathogenic factor, no matter what the nature of the vascular degeneration." The anatomical distribution of primary hypertensive hemorrhages is distinctly different from that of saccular aneurysms. Reliable pathological data for hypertensive hemorrhages has not yet been obtained because the vessels from which intracerebral hemorrhages occur are frequently incorporated in the destructive process. It appears that the basic lesion is quite different from that of saccular aneurysms.

It is reported that 70 to 80 per cent of patients with aneurysmal rupture have associated hypertensive disease.[13, 30] Patients with ruptured aneurysms have a poorer prognosis if they are hypertensive.[39, 40] In addition, it is estimated that as many as 10 per

cent of aneurysmal ruptures occur during coitus, defecation or other stress which might produce temporary elevation in intravascular pressures.[16, 27, 40] Crawford has logically proposed that, given two blood vessels with similar defects in their walls, the one in which the intravascular pressure was highest would give way to aneurysmal formation first.[14] This may explain the reports of children who have been victims of intracranial aneurysmal ruptures associated with coarctation of the aorta.

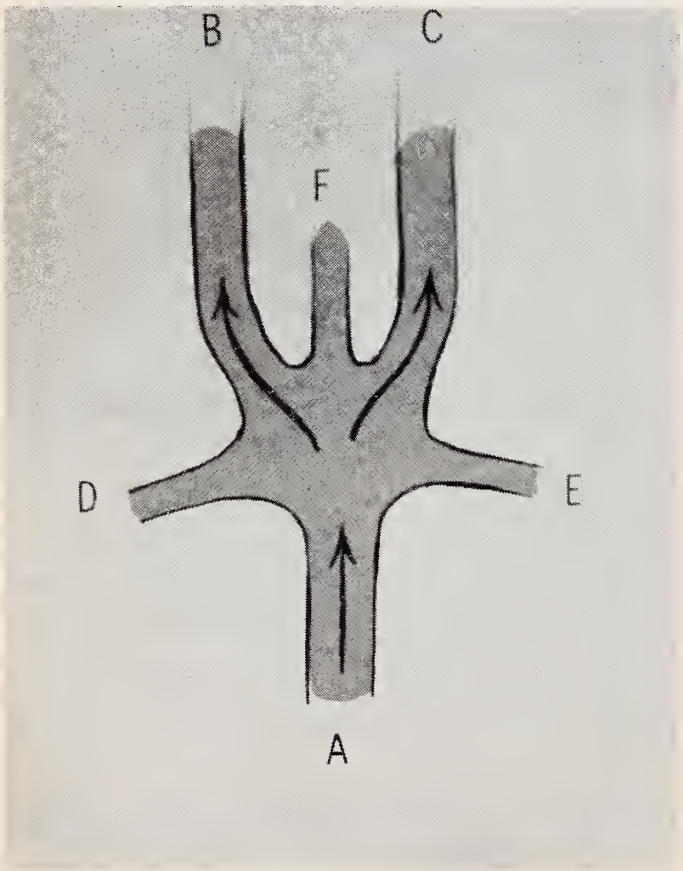
Analyses made by the cooperative study have demonstrated a positive correlation between aneurysmal size and the degree of hypertension, although they failed to give any evidence that aneurysms mature earlier in hypertensive individuals than in normo-tensive persons.[28] Chason and Hindman,[13] after studying the aneurysms obtained from over 2,700 consecutive autopsies, found that the average size of ruptured aneurysms was almost twice that of the unruptured aneurysms. If these findings are integrated, we have suggestive evidence of a causative relationship between hypertension and aneurysmal rupture. Pool and Potts[40] appropriately point out, however, that small aneurysms may bleed copiously while large aneurysms which have never ruptured are frequently encountered.

Relationship of Hemodynamics to Intracranial Aneurysm Formation

Recent studies have indicated that certain factors in hemodynamics may be conducive to the production of saccular aneurysms. Forbus in 1930,[17] using six experimental models made of excised blood vessels and relatively stationary intravascular fluid, increased the intravascular pressure until the vessels ruptured. In no case did the vessels rupture at the bifurcation, the site of usual aneurysmal formation. This finding suggested that there was no inherent weakness at the site of blood vessel bifurcation.

In a second experiment using a series of rigid models (as in Figure 2), water was made to pass through the system and pressures were measured at various points. Forbus demonstrated a pressure differential when fluid was caused to flow through the system. The point of maximum pressure corresponded to that point in the vessel wall where the longitudinal axis of the impinging column (A) of water intersected the vessel wall (measured through orifice F). The pressure differential increased as the velocity of flow increased and as the angle of the flow to the vessel wall increased.

Hassler[22] has demonstrated that fluid flowing through deformable silicon tubes made in the shape of bifurcating or anastomotic blood vessels will produce pitting in the apex of the bifurcation indicating



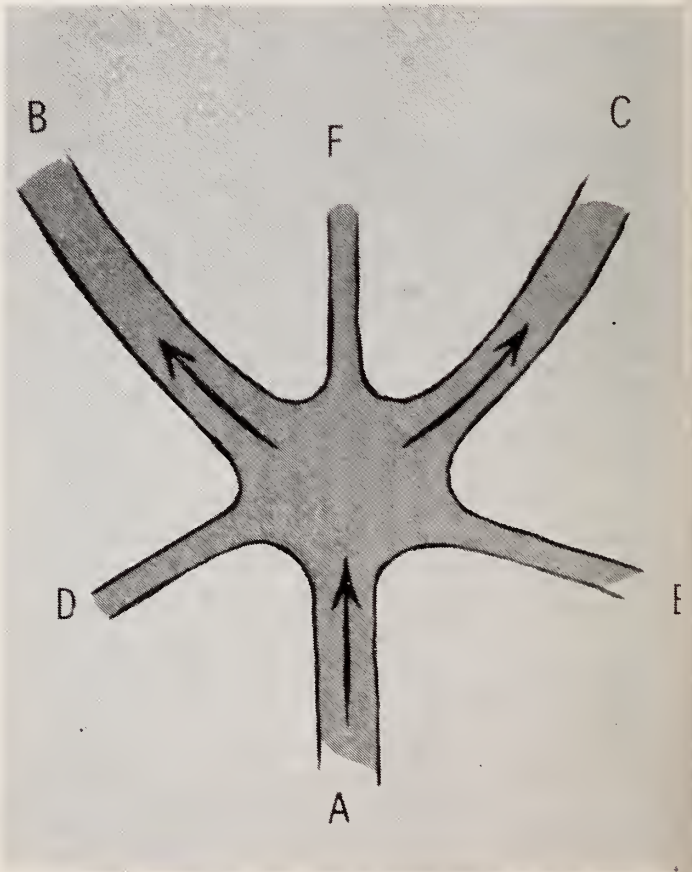
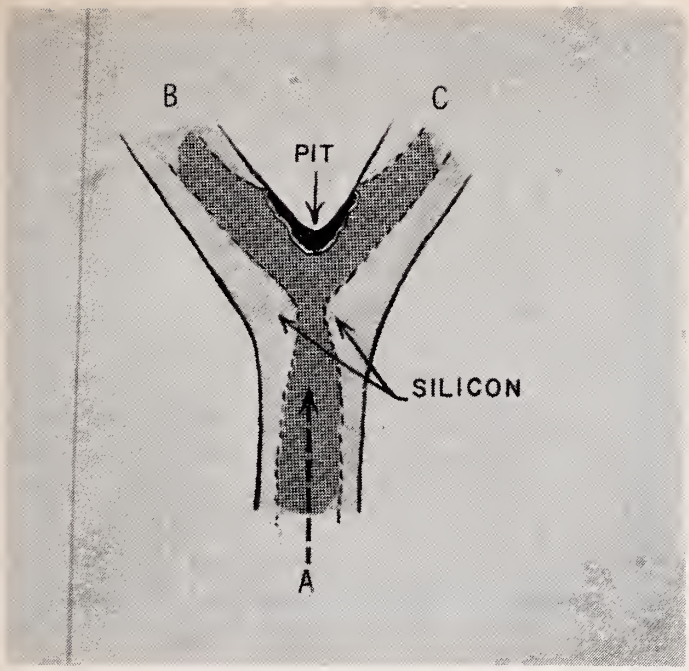


FIGURE 2, a AND b
Representatives of the glass models of Forbus.[17] When fluid flows from point A, the greatest pressure is measured at point F. A differential in pressures between points F contrasted to points B and C increased as the rate of fluid increased and as the angle between limbs B and C increased.



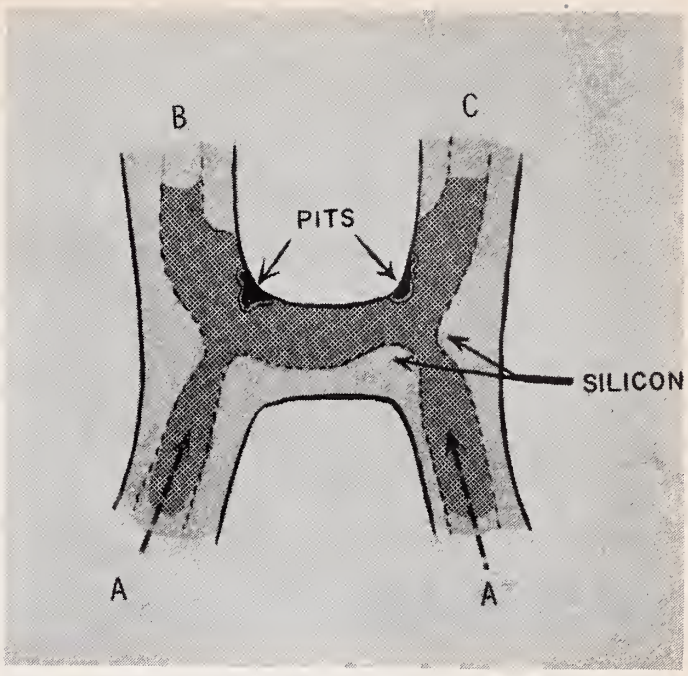


FIGURE 3, a AND b
Deformable models constructed by Hassler[23] in shapes of blood vessel bifurcation (a) and anterior cerebral-anterior communicating complex. (b) Note pits forming at apex of bifurcation with collections of silicon which appear to correspond to intimal cushions on the opposite lateral walls.

the points of greatest strain on the arterial wall and a piling up of silicone on the lateral surfaces. (See Figure 3.) He likened these collections of silicone to intimal cushions and assumed that intimal cushions were the result of remolding of the arterial wall caused by the flowing blood.

He believes that hemodynamics are most important in the production of intracranial aneurysms. Examining a series of normal and abnormal vessels with micro dissection technique, he found 45 minute aneurysms all but two of which were located on or near the distal carina between two branching vessels. All were in patients over 30 years of age. Similarly medial defects and intimal tears were much more commonly seen in vessels from patients over 30 years of age and most were found in the middle and anterior cerebral arteries. Intimal cushions were present in the vessels of a few newborn individuals and in most individuals above 15 years of age. These were situated on the proximal side of a vascular bifurcation directly opposite to any defects.

Sites Could Be Altered

In a later report Hassler[23] demonstrated that the sites of defects in blood vessel walls as well as the sites of intimal cushions could be altered and even aneurysmal dilatations produced by ligating an internal carotid artery. These lesions occurred at the bifurcation of vessels in the path of the newly acquired blood flow. It appeared that they were more likely to occur if the blood flow was greatly increased. Both of two animals with bilateral internal carotid ligations had aneurysmal dilatations at the anterior end of the basilar artery.

The common occurrence of saccular aneurysms on the arteries supplying intracranial arteriovenous malformations has been noted by a number of authors.[3, 4, 8, 10, 12, 51] Other authors have also noted "aneurysms" of the Great Vein of Galen in association with arteriovenous malformation of the posterior portion of the cerebral hemisphere.[15, 26, 38, 42] Most investigators have considered the existence of saccular aneurysms in association with arteriovenous malformations as evidence that the saccular aneurysm, like the arteriovenous malformation, was of congenital origin.

Present knowledge regarding the pathogenesis of saccular aneurysms might cause one to consider the possibility that such lesions are due to the added stress associated with increased blood flow through supplying blood vessels. Haggendal, et al.,[20] utilizing radioactive krypton or xenon in techniques designed to study regional cerebral blood flow demonstrated local flow rates in arteriovenous malformations over four times those of normal cortex. Bessman, et al.,[9] using the nitrous oxide technique, have demonstrated blood flow through one hemisphere which includes an arteriovenous malformation may be three times that of the normal cerebral hemisphere and Shenkin, et al.,[46] have found the average flow through the jugular veins receiving blood from an arteriovenous malformation may be as much as three and one half times normal.[46] In these reports we have documented evidence of an already accepted fact that flow in vessels feeding to or receiving blood from an arteriovenous malformation is greatly increased. Consequently, one might properly conclude that the stress of greatly augmented blood flow was at least

partially responsible for the increased incidence of saccular aneurysms associated with arteriovenous malformations. Such an hypothesis was suggested by Paterson and McKissock[37] in 1956.

Dissolution Is Common Denominator

From the work which has been reviewed, it is apparent that the common denominator in the etiology of intracranial saccular aneurysms is dissolution of supporting connective tissue fibers in the wall of blood vessels. Probably the most important fibers to be lost are those of the internal elastic membrane. Thus in searching for the etiology of saccular aneurysms, one is searching for a cause for loss of these fibers. The problems of investigation may closely parallel those of emphysema where one frequently sees progressive disease due to loss of contracting fibers within the lung parenchyma. It would seem doubtful that a single cause for loss of these fibers will be determined. The fact that there are fewer elastic fibers in the walls of normal intracranial vessels than in systemic vessels appears significant. Perhaps some vessels do have areas of weakness due to developmental defects within the wall, but as in other areas of the body, specific stresses would be expected to contribute toward the dissolution of elastic fibers. Such postnatal hemodynamic stresses as increased blood flow associated with arteriovenous malformations, hypertension, whether temporary or constant, and stretching of bifurcations for any reason would seem to be important factors. Certain inflammatory diseases are known to attack connective tissue elements selectively and these could contribute to weakness of vessel walls, as would certain metabolic diseases.

Despite the massive literature, only a minute portion of which has been reviewed, there are still many unanswered questions regarding the etiologies of this complex lesion. However, this review indicates that a better understanding of the lesion is resulting from detailed experimental evaluation.

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■ Two illustrative case reports are presented and discussed.

TRAUMATIC VOMITING

The Mallory-Weiss Syndrome*

Hoyt Young, M.D., Stephen W. Gray, Ph.D., *and* John E. Skandalakis, M.D., *Atlanta*

VOMITING IS A NORMAL, if uncomfortable, physiological process, but in its severest form it is one of the most violent expressions of muscle contraction in the human body. It is not surprising that tissues may be torn by such violence; it is surprising that it happens so rarely.

Alimentary tract tissues may be torn during violent emesis above or below the diaphragm, but rarely at both locations. The clinical picture of tearing in the two locations is very different.

Tears in the esophagus above the diaphragm usually rupture the entire wall; the result is catastrophic and intensely painful, readily diagnosed but rapidly fatal unless treated surgically at once. This has been termed idiopathic spontaneous rupture of the healthy esophagus.

Tears below the diaphragm, in the cardia of the stomach, or across the gastroesophageal junction, in the abdominal portion of the esophagus, rarely involve more than the mucosa and submucosa. The muscular coats do not rupture. Hemorrhage, massive or occult, is the only indication of the lesion. Death may occur from exsanguination,[13] or from sequelae of progressive anemia.

These gastric mucosal tears following violent emesis constitute the frequently neglected Mallory-Weiss syndrome. Nearly one hundred cases have been reported in the English language literature since it was described by Mallory and Weiss in 1929. Of these cases, fully one-third have been recognized only at necropsy after a fatal outcome. Certainly many other cases have escaped diagnosis before and after death.

Case Reports

Case 1. (Piedmont Hospital No. 242,167): A white male, age 47, weighing 180 pounds, with a history of alcoholism, was admitted on a stretcher to the emergency room on 4/22/62. He had vomited blood six times but was not in shock. He was given 500 cc of 6 per cent Dextran and a Levin tube was introduced. Two days later, after 1000 cc whole blood had been administered, bleeding stopped. A radiograph demonstrated a possible duodenal ulcer. On 4/26 the patient vomited 2000 cc of fresh blood, passed a bloody stool and went into shock. Four units of blood were given.

Operation: On 4/26 the patient was explored through an upper midline incision. The stomach was opened along the greater curvature and four small bleeding mucosal tears at the gastroesophageal junction were ligated. The first portion of the duodenum was deformed, scarred and injected due to ulcerative disease. Because of this, hemigastrectomy with Polya procedure and vagotomy was performed. The patient received 2000 cc of whole blood and 1700 cc of fluid during the operation. After a stormy convalescence, with ten days of hiccoughing and pneumonitis, he was discharged well on 5/24/62.

Case 2. (Piedmont Hospital No. 309,575): The patient, a very obese white male, age 48, had eaten a huge supper on 7/26/66, retired, and later in

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From the Department of Surgery of the Piedmont Hospital and the Department of Anatomy, Emory University Medical School, Atlanta.

the night vomited with great force. After breakfast the next morning he vomited snuff-like material. He went to the hospital emergency room where hemoglobin (12.8) and hematocrit (40) were checked and was sent home. Following three more episodes of hematemesis at home the patient went into shock and was brought to the emergency room at 1:00 a.m. on 7/28/66.

The patient had a twenty-year history of intermittent excessive food ingestion followed by forceful vomiting. Alcohol consumption was variable, usually beer. Two years earlier the patient was told he had a gastric ulcer. It was treated medically and the symptoms disappeared.

Five hours after admission the patient had received seven pints of blood and four pints of Dextran and was passing bright blood through the Levin tube. A surgeon was consulted.

Operation: On 7/28/66 the abdomen was opened. Stomach, small and large intestines were full of blood. Exploration of the lower stomach revealed only a partially constricted pylorus. The gastroesophageal junction was exposed with difficulty and a 3.6 cm longitudinal mucosal laceration was found extending across the cardioesophageal junction. The laceration was sutured and the gastrotomy closed. Two pints of blood were administered during surgery. Subsequent radiography showed no abnormality. The patient was discharged well two and one-half weeks later.

DISCUSSION

Pathogenesis

The most frequent cause of esophageal tearing is the vomiting of alcoholic debauch. Vomiting from a wide variety of other causes may, however, produce the same result. Esophageal tears have been produced by migrane,[5] emotion,[5] uremia,[12] myocardial infarction,[12, 14] hyperemesis gravidarum,[7, 11] coughing,[1] external trauma[2] and postoperative[17] or postpartum nausea.[11] To this list we can add compulsive overeating (case 2 above).

The mechanics of tears in elastic tubular structures have been analysed by Derbes and Mitchell[3] and more simply recapitulated by Hodges.[10] Distention is the result of radial thrust with the principal line of stress tangential at a right angle to the tube. Rupture is hence in a line at right angles to the stress, *i.e.*, in the longitudinal axis of the tube. Intragastric pressure during straining and retching in live human subjects reaches 120-160 mm.Hg. with transient pressures up to 200 mm.Hg.[1] Such pressures are not supported by the gastric wall alone as abdominal pressure produced by the diaphragm and the abdominal muscles rises to nearly the level of the intragastric pressure. Thoracic pressure, on the contrary, remains at 30-50 mm.Hg.

Fleischner[6] and, later, Hodges[10] have suggested that tearing occurs because the cardia moves into the thorax during vomiting. This is known to occur in the dog[15] but it has not been directly observed in humans.

The presence of eleven recognized cases of hiatal hernia among the fifty-four cases of Mallory-Weiss syndrome reviewed by Dobbins[4] suggests that hiatal hernia predisposes to trauma during forceful emesis. It is probable that in the other patients a temporary hiatal hernia existed during vomiting. It is further probable that a tight esophageal hiatus protects most individuals from such trauma.

This "hiatal hernia" hypothesis is more reasonable than that proposed by Grimes[8] based on contraction of the inferior esophageal constriction mechanism. The normal physiology of the distal esophagus is too poorly understood to provide a firm foundation for this explanation.

Incidence

About three-fourths of the victims of the Mallory-Weiss syndrome are males, and two-thirds are over the age of fifty.[4] Only one estimate of the frequency of the disease is available. Katz and his colleagues[11] found eight cases among 297 admissions in New York for upper gastrointestinal tract bleeding (2.69 per cent). Of these eight, the mucosal tears seen endoscopically in two were not actively bleeding. The remaining six cases accounted for 9.8 per cent of all patients with massive bleeding.

Diagnosis

Once the nature of the lesion is suspected, esophagoscopy will usually confirm it although there are cases in which no lesion was seen endoscopically but was found at operation.[4] Some authors suggest that all patients with severe upper gastrointestinal tract bleeding should have an endoscopic examination upon admission.[9, 11] Much time will be saved and blood loss averted by this procedure.

Differential Diagnosis

Recognition of the Mallory-Weiss syndrome is difficult because upper gastrointestinal tract bleeding in middle-aged male patients invariably suggests duodenal or gastric ulcer. This tentative diagnosis is often reinforced by the presence of an ulcer or a history of ulcers treated conservatively. A known history of alcoholism may suggest bleeding esophageal varices in individuals in whom no ulcers are known. Finally, the age and sex group is that in which gastric carcinoma may quite reasonably be suspected. All of these common causes of bleeding must be considered and ruled out.

Esophageal rupture, although also a sequel to forceful vomiting, presents a very different picture.

Vomiting ceases with the onset of pain, and signs of hydrothorax, pneumothorax and mediastinitis appear. The patient rapidly becomes severely ill, but massive bleeding rarely occurs.[16]

Treatment

Blood replacement is the first consideration for any patient with upper gastrointestinal bleeding. Hemoglobin determination and hematocrit readings must be taken frequently. The patient should be sedated and in bed. Early esophagoscopy is advisable.

Not all lacerations of the cardia seen by esophagoscopy bleed, and many cease bleeding without surgical intervention.[11] The surgeon must decide in each case when such intervention is necessary. The following criteria are useful:

Surgical exploration should be performed: 1. If peripheral vascular collapse is imminent; 2. If circulation cannot be stabilized; 3. If bleeding persists more than 48 hours, *or* blood loss exceeds 1500 cc per day, *or* bleeding recurs after having stopped; or 4. If the patient is over age fifty.

Summary

Two cases of the Mallory-Weiss syndrome are reported, one resulting from vomiting after compulsive overeating. The problem of diagnosis and the criteria for surgical intervention are discussed.

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PHARMACEUTICAL MANUFACTURERS ASSOCIATION OFFERS 1968 CLINICAL PHARMACOLOGY FACULTY AWARDS

The Pharmaceutical Manufacturers Association Foundation has announced that applications for its 1968 faculty development awards in clinical pharmacology must be submitted on or before October 1.

It marks the second year that the PMA Foundation has offered the awards to medical schools for salary support of full time junior faculty positions in clinical pharmacology.

Last year's recipients were the Schools of Medicine of the University of Washington, Emory University, and the University of Minnesota.

PMA Foundation President C. Joseph Stetler described the awards as "a cooperative effort of the prescription drug industry to stimulate teaching, training and research."

When the program was originally announced last year, Stetler noted the "increasingly demanding task" of drug investigation and cited the "highly important status" attained by scientific drug investigation in many academic centers.

Applicants for the awards should have at least one year of experience in a research training program related to the area of clinical pharmacology and should indicate "a strong determination for a full-time career in clinical pharmacology." The awards are for two years each but may be extended for an additional two years.

Further details are available from the PMA Foundation which was established in 1965 by the Pharmaceutical Manufacturers Association "to promote the public health through the study and development of the science of therapeutics." The Foundation is located at 1155 Fifteenth Street, N.W., Washington, D.C.

EXPERIENCES WITH INTESTINAL SHORT CIRCUITING PROCEDURES FOR OBESITY

Charles E. Wills, Jr., M.D., *Washington, Georgia*

■ **The author feels that modifications of these shunting procedures are well worth considering in selected cases where marked health hazards exist.**

MEDICAL LITERATURE ABOUNDS with studies of metabolism after massive bowel resection for various medical reasons; however, very little has been reported about short circuits for obesity. Dr. Howard Payne of Los Angeles reported an excellent study of 10 cases in 1963[1] and Dr. C. D. Sherman, Jr., demonstrated the terminal ileum as the site of B_{12} absorption in 1963.[3] Patients who have short circuits with no functioning ileum must receive supplemental vitamin B_{12} in doses of 1000 mg. monthly. Dr. Henry Buckwald further demonstrated the marked serum cholesterol drop when the terminal ileum is excluded by intestinal bypass.[5] Dr. Payne[1] and Dr. I. H. Page[8] found electrolyte problems in patients with jejuno-colic bypasses. Dr. Page[8] used MgSO 4 by injection for some patients when they were disturbed with symptoms of nausea and anorexia and had low serum magnesium levels, and he also reported marked reductions in the serum lipids and lipoproteins with jejuno-colic shunts. Dr. M. A. Troncelliti[6] reported findings of relative hypertrophy of the functioning small bowel and relative atrophy of the non-functioning small bowel after small bowel shunts.

This is a report of 14 patients who had intestinal short circuiting procedures primarily for relief of obesity. Most of these patients had health disorders such as diabetes mellitus, hypertension and gout, in addition to their obesity. They ranged from 75 pounds to 200 pounds over normal weight values, and had all tried various weight reducing measures for many years unsuccessfully. There were primarily two different types of procedures performed. The first is shown in Figure 1. After the abdomen is opened and generally explored, the ligament of Treitz is identified. Then, starting at the ligament of Treitz, and measuring on the mesenteric side of the jejunum in a downward direction with a measured tape, a point is picked on the jejunum that is 20 inches below the ligament of Treitz. At this point, the bowel is divided. The distal end of the jejunum is then simply closed upon itself with one layer of inverting 4-0 silk sutures, leaving it as a blind pouch. The proximal end of the jejunum is then anastomosed in an end-to-side fashion to the transverse colon. This is a regular two-layer anastomosis consisting of interrupted 0-Chromic gastrointestinal su-

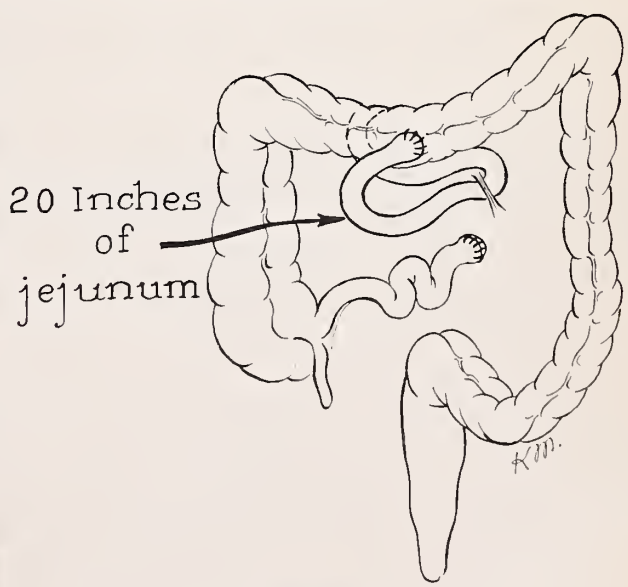


FIGURE 1

Presented at the Tenth District Medical Society Meeting, August, 1966, Augusta.

ture on the inner layer and interrupted 4-0 silk sutures on the outer layer. All of these sutures are of an inverting nature. Following this, the abdominal wall is closed in a routine anatomical fashion with the addition of wide stainless steel stay sutures.

The second procedure consists of anastomosing 15 inches of the jejunum to the terminal ileum 10 inches above the cecum in an end-to-side anastomosis (Figure 2). After the abdomen is opened and explored, the ligament of Treitz is identified, and measuring downward with a measured tape along the mesenteric side of the jejunum, a point is picked 15 inches below the ligament of Treitz. At this point, the bowel is divided. The distal end of the jejunum is simply closed upon itself with one layer of inverting 4-0 silk sutures leaving it as a blind pouch. The proximal end of the jejunum is then anastomosed to the terminal ileum at a point measured along the mesenteric side of the ileum 10 inches above the ileo-cecal junction. This anastomosis is a two-layer anastomosis consisting of interrupted inverting 3-0 Chromic gastrointestinal sutures on the inner layer and interrupted inverting 4-0 silk sutures on the outer layer. Following this, the abdominal wall is sutured anatomically with the addition of wide stainless steel wire sutures.

The distal end of the jejunum in each case was left as a blind pouch. Preoperative work-ups on these patients primarily included complete histories and physical examinations, cholesterol and serum protein determinations. Other tests such as glucose tolerance tests and uric acid levels were done only when it was suspected that they might be abnormal. In cases where the large bowel was involved, the large bowel was routinely prepped for this special surgery.

Case Reports

1. 32 year old white female, weight 251 pounds, height 68 inches, November 1963: This patient had a family history of general obesity in her entire family, and her father died at the age of 61 with a weight of over 300 pounds. It was felt that his obesity greatly contributed to his early death. The patient had been obese for about 15 years and for the past 10 years, had tried all of the usual methods of weight control in the form of diet, thyroid therapy and anorectic drugs. All of these methods repeatedly proved to be completely ineffective. In November 1963, a jejuno-transverse colostomy was performed. (See Figure 1.) This left the patient with 20 inches of functioning jejunum and about the lower two thirds of functioning large intestine. Nine months later, she had lost 115 pounds and weighed 135 pounds. For the next seven months, her weight stabilized in this range, reaching a low of 127 pounds. The patient had considerable side effects in the form of nausea, gas on the stomach and diarrhea; however, the patient was so pleased and motivated by the marked weight loss that she was quite happy to put up with these side effects. In February of 1965, a revision of her jejuno-transverse colostomy shunt was perfomed primarily in an effort to try to improve these side effects. This procedure consisted of taking down the previous jejuno-transverse colostomy anastomosis, excising the distal 5 inches of the jejunal segment since it had been 20 inches long and now was changed to 15 inches long, then anastomosing this jejunum to the ileum at a point 10 inches above the ileo-cecal junction. This provided her with a jejuno-ileac shunt in which she had 15 inches of functioning jejunum, 10 inches of functioning terminal ileum and the entire functioning large intestine (Figure 2). Following this procedure, her weight has slowly, but progressively, increased to 175 pounds, 44 months after her original surgery.

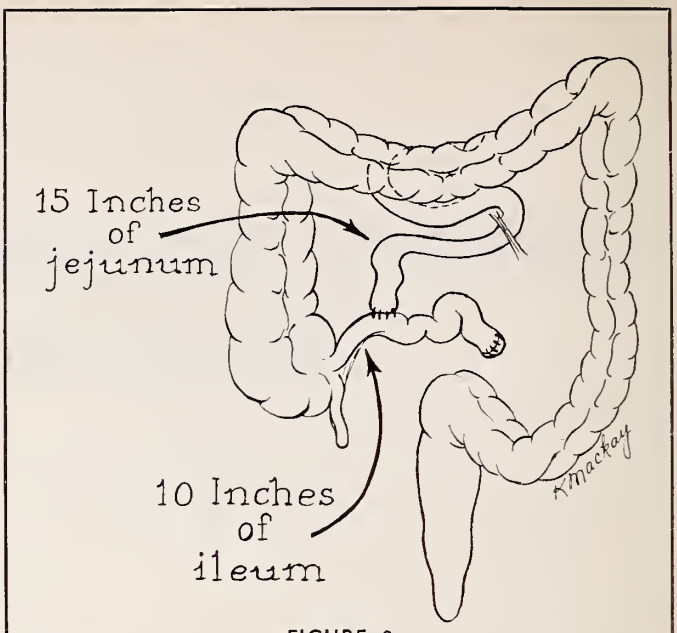


FIGURE 2

2. 46 year old colored female, weight 227 pounds, height 65 inches, April 1966: This patient was known to have diabetes mellitus for approximately five years. It was a relatively mild case and the patient had not had any complications. Due to her economic and educational status, treatment of this diabetes was an impossibility; staying on any type of diet or losing weight was out of the question. In April 1966, an ileo-transverse colostomy was performed leaving the patient with 20 inches of functioning jejunum and approximately the lower two thirds of functioning large intestine. (Procedure 1.) Seven months later, she had lost 100 pounds and weighed 127 pounds. During this period, the patient had to be hospitalized on two occasions to relieve symptoms due to dehydration, electrolyte imbalance and general

nervousness. The patient was very unhappy with this procedure due to the side effects consisting of nausea, inability to eat, gas pains on the stomach and diarrhea. For this reason, in November 1966, her shunt was revised and she was left with 13 inches of functioning jejunum and 4 inches of functioning terminal ileum. This was a jejuno-ileal shunt. (A modification of Procedure 2.) For the last seven months, the patient's weight has stabilized at 135 pounds. Since her second procedure, she has developed deficiencies of potassium and calcium that have been easily controlled by taking oral supplements of these electrolytes. The patient is now well and happy. The only side effect is two to three bowel movements per day. Her preoperative and postoperative glucose tolerance test curves are shown in Figure 4. She now has a flat curve.

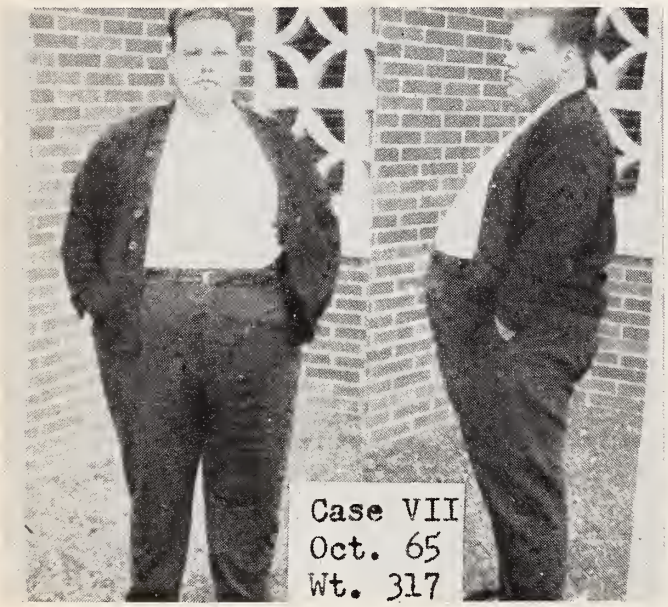
3. 43 year old colored female, weight 270 pounds, height 62 inches, June 1965: She had a history of extreme obesity for 25 years. She also had a history of general aches and pains which were attributable to arthritis. On many occasions, she had been advised to lose weight; however, all efforts in this direction were unsuccessful. Her obesity and arthritis were so bad that she became unable to work. Her BP was 240/140. In June 1965, a jejuno-ileostomy was performed, leaving her with 15 inches of functioning jejunum and 10 inches of functioning terminal ileum. Following her surgery, the patient had very few side effects, the main ones consisting of three to four bowel movements per day. One year later, the patient was weighing 210 pounds and working regularly. She stated that generally she felt good. Her BP was recorded at 220/150. She was not taking any antihypertensive medication. 24 months following her surgery, she weighed 225 pounds, her BP was 190/120 and she has now applied for Welfare disability.

4. 38 year old colored female, weight 360 pounds, height 67 inches, July 1965: She had a history of progressive, increasing obesity for the last 12 years. Diets and reducing pills had been tried on many occasions without success. In July 1965, a jejuno-ileac shunt was performed on the patient leaving her with 15 inches of functioning jejunum and 10 inches of functioning terminal ileum. One year later, her weight was 310 pounds and 23 months after surgery, her weight was 294 pounds. The patient complains a good bit of symptoms consisting primarily of gas on the stomach and three to four bowel movements per day. Generally, she feels good and works regularly.

5. 33 year old white female, weight 246 pounds, height 64 inches, August 1965: This patient had a history of obesity for 10 years and considerable treatment for obesity for the past two years. She would lose weight using diets and anorectic drugs; however, she would always gain it back again and at one time, weighed 290 pounds. In August 1965, a jejuno-ileac shunt was performed leaving the patient with 15 inches of functioning jejunum and 10 inches of functioning terminal ileum. For the first two days after surgery, she vomited bright red blood and later had tarry stools. Her Hgb. dropped to 9.1 grams, and for this reason, she was given 4 units of blood over the first several days following her surgery. The bleeding subsided and the exact cause of it was never determined. It was thought that the most likely cause was traumatic endotracheal intubation at the time of surgery. Following her surgery, she has felt very well, the only side effects being numerous bowel movements. In four months time, her weight was down to 216 pounds. Following this, her weight stabilized and 22 months later, she still weighs 216 pounds. This patient states that she eats constantly. She eats much more than she did before her surgery and is very happy and states that she feels that if she had not had the operation, she would be over 300 pounds. She states that with a little

regulation of her diet, she can reduce her bowel movements to two or three a day; however, she much prefers to eat any and everything and frequently six to eight bowel movements a day do not disturb her in the least.

6. 24 year old white female, height 65 inches, weight 236 pounds, September 1965: Her father died at age 52 of a heart attack, she has one sister and one aunt who are diabetics and are very obese. Preoperatively, she had a mild diabetic curve, her blood sugar going up to 203 after one-half hour. In September 1965, a jejuno-ileac shunt was performed leaving her with 15 inches of functioning jejunum and 10 inches of functioning terminal ileum. Following her surgery, she has done extremely well and has had few complaints. In March 1967, the peak of her glucose tolerance test was 133. 21 months after her surgery, she weighed 145 pounds, a total loss of 91 pounds and this weight has been stable for eight months.



7. 24 year old white male, weight 317 pounds, height 69 inches, October 1965: He had been overweight all his life and reducing methods using diets and pills were all unsuccessful. Before his surgery, he had numerous attacks of gouty arthritis and several uric acid determinations had been formed that were between 8 and 9 mg%. In October 1965, a jejuno-ileac shunt was performed leaving this patient with 15 inches of functioning jejunum and 10 inches of functioning terminal ileum. Three days following his surgery, he eviscerated and was taken back to surgery and repaired uneventfully. Following this, the wound healed uneventfully. 20 months later, his weight was 210 pounds and had been stable for 6 months. Uric acid determinations were performed at intervals and are summarized in Table III. He has had no clinical symptoms of gout since April 1966.

8. 42 year old white male, weight 376 pounds, height 74 inches, October 1965: His father died at age 55 of a heart attack and a weight of 265 pounds. The mother weighs 240 pounds. At age 21, he weighed 200 pounds and ever since that time, he has steadily and progressively gained weight until one year ago, he weighed 325 pounds. Recognizing the danger to his health, he made a special effort to lose weight; however, in spite of this effort, he gained 50 pounds. He had a long standing history of gouty arthritis and his uric acid was 9 mg.%. In October 1965, a jejuno-ileac shunt was performed, leaving him with 15 inches of functioning jejunum and 10 inches of functioning terminal ileum. In addition to this, a left inguinal hernia was repaired. On the eighth postoperative day, a wound infection was noted in both incisions. 14 days after his surgery, he eviscerated. The abdominal incision was repaired and healed uneventfully. The wound infection was treated with antibiotics. Six months after his surgery, he had some swelling and redness in the legs that was felt to be cellulitis and it was treated medically successfully. In general, he did extremely well. 12 months after his surgery, his weight was 275 pounds and 20 months after his surgery, it was 260 pounds. The patient feels so good and is working so much, he has not found time to return and get adequate follow-ups on his blood studies. Since April 1966, he has had no symptoms whatever from his gout. On July 1, 1967 the uric acid was 4 mg.%. He has not taken treatment of any type for it. The patient also volunteered that his operation has not disturbed his frequent use of alcoholic beverages.

9. 31 year old white male, weight 350 pounds, height 72 inches, November 1965: He has been overweight all his life. At the age of 18, he weighed 280 pounds. He has slowly, but steadily, increased to the

present weight. Before his surgery, he had a history of hepatitis and preoperatively, his B SP (bromsulphalein) was 45 per cent retention at 45 minutes and his Cephalin Flocculation test was 4-plus at 24 hours. In November 1965, a jejuno-ileac shunt was performed leaving him with 15 inches of functioning jejunum and 10 inches of functioning terminal ileum. A biopsy of his liver at the time of surgery was reported as mild fatty change in the liver. In February 1966, he was noted to have a small ventral hernia in his incision. 12 months following his surgery, he weighed 260 pounds. 19 months after his surgery, his weight was 248 pounds. In June 1967, the ventral hernia was repaired.

10. 39 year old white female, weight 215 pounds, height 67 inches, December 1965: She has nine close family relatives who are diabetics and there is a strong family history of obesity and heart disease. She has been overweight for about 15 years. Repeated efforts to reduce by conventional means were unsuccessful. In spite of trying to reduce, her weight was climbing steadily and she was confident that within a short time, she would weigh in the range of 250 pounds. In December 1965, a jejuno-ileac shunt was performed leaving the patient with 15 inches of functioning jejunum and 10 inches of functioning terminal ileum. Following her surgery, she has done well. The amount of weight loss has been disappointing. 18 months after her surgery, she weighs 175 pounds. She states that she has a bowel movement every four to five days and occasionally has to take laxatives to promote bowel movements.

11. 38 year old white female, weight 222 pounds, height 60 inches, December 1965: This patient had tried every means of weight reduction that she she could find and these met with only temporary and partial success; whenever she lost weight, she soon gained it back again. In December 1965, a jejuno-ileac shunt was performed, leaving the patient with 15 inches of functioning jejunum and 10 inches of functioning terminal ileum. On the day following surgery, she coughed and stated that she felt as if something had broken loose. Six days postoperatively, she eviscerated and the abdominal wound had to be repaired. This healed uneventfully. Three months postoperatively, she started having attacks of cramping abdominal pains. The attacks occurred about once a month. Each time, intestinal obstruction was considered; however, they always subsided and her last attack of this was September 1966. Her rate of weight loss has been disappointing; however, 18 months after her surgery, her weight was 175 pounds.

12. 22 year old white female, weight 228 pounds, height 63 inches, February 1966: This patient had been overweight since the age of nine. The only reason for her obesity was that she just liked to eat, and many reducing schemes had been tried unsuccessfully. In February 1966, a jejuno-ileac shunt was performed leaving the patient with 15 inches of functioning jejunum and 10 inches of functioning terminal ileum. The patient did very well and progressively lost weight for 14 months, after which time her weight was 128 pounds. 16 months after her surgery, her weight loss seems to have stabilized at 125 pounds.

13. 48 year old white female, weight 235 pounds, height 65 inches, March 1966: She had been overweight most of her life and had repeatedly tried the methods of weight reduction unsuccessfully. She has a general family history of obesity. In March 1966, a jejuno-ileac shunt was performed leaving the patient with 15 inches of functioning jejunum and 10 inches of functioning terminal ileum. Since her surgery, the patient has had numerous complaints, primarily of the nervous type. On numerous occasions, she has complained of six to eight bowel movements per day, in spite of taking the usual measures of Lomotil and reducing the amounts of fat in her diet. This was reduced to two bowel movements a day when the patient was given a specific fat free diet. Apparently, this patient still lacks the will power to reduce the

amount of fats in her diet and for this reason, continues to have some problems with diarrhea. 15 months after her surgery, her weight was 161 pounds.

14. 30 year old white female, weight 206 pounds, height 63 inches, March 1966: She had been overweight for the past 12 years and had an obsessive compulsion to eat excessively. She states that this compulsion to eat follows becoming extremely weak and nervous. She has had out-patient treatment for a nervous breakdown at Milledgeville State Hospital since 1965. In March 1966, a jejuno-ileac shunt was performed leaving her with 15 inches of functioning jejunum and 10 inches of functioning terminal ileum. Following her surgery, she had no trouble except for minor emotional disturbances and 14 months after her surgery, her weight was 141 pounds.

Complications

There were three eviscerations (case numbers 7, 8 and 11). Following these, wire stainless steel stay sutures were placed in all incisions and there were no more eviscerations. All of these were repaired and healed uneventfully. One case vomited blood postoperatively (case number 5) and required 4 blood transfusions; the exact cause of the vomiting was never determined. One case has to take electrolyte supplements due to potassium and calcium deficiencies. The remainder of the complications are listed in Table I.

TABLE I
COMPLICATIONS

1. 3 eviscerations	4. 3 wound infections
2. 1 ventral hernia	5. 1 electrolyte imbalance
3. 1 mild anemia	6. 1 vomited blood post op.

Side Effects

Side effects following Procedure 1 are severe. Patients complain of diarrhea, cramping pains in the abdomen, gas pains, passing gas, vomiting, inability to eat and weakness. After a period of time, usually several months, these symptoms subside considerably; however, they remain to some extent. With Procedure 2, the side effects are minimal. None of the patients in this category objects to the side effects. These consist primarily of one to four bowel movements each day. (See Table II.)

TABLE II
BOWEL MOVEMENTS

Number of stools a day	Number of cases
1	2
1-4	11
4-6	1

General Impressions and Observations

I. Jejuno-transverse colostomy (Procedure 1) produces a very dramatic weight loss. However, there are considerable side effects in the form of vomiting, gas on the stomach and diarrhea. These are not too great if the patient has great emotional motivation and is very interested in the procedure's working well. If this is not true, the patient may be rather unhappy with these side effects. With the jejuno-ileac shunt (Procedure 2), weight loss is slower and less dramatic. By the same token, the side effects are relatively few. The number of problems that these people have depends to a large extent on the diet. If the diet is too high in fatty foods, they are likely to have numerous stools. This is quite easily controlled by reducing the fatty content of the diet. Dr. Harry LeVeen[9] has found large doses of calcium carbonate effective in the treatment of some diarrhea cases following massive small bowel resection. Dr. Sherman[4] found some patients with diarrhea benefited with sulfonamide therapy when it was due to infection or fermentation of sugar.

II. None of these cases has shown evidence of nutritional deficiencies. Periodic checking of cholesterol and proteins has been done in all cases.

III. Drastic drops in cholesterol are noted when the ileum is completely excluded as in the jejuno-transverse colostomy (Procedure 1). With the jejuno-ileostomy (Procedure 2), there is frequently a cholesterol drop; however, it is not dramatic and it usually stays within the normal range. (See Figure 3.)

IV. When these people lose weight, they do not feel weak. This is in marked contrast to the weakness that people generally feel when they lose weight by dieting. I cannot explain this finding unless the weakness is on a psychic basis.

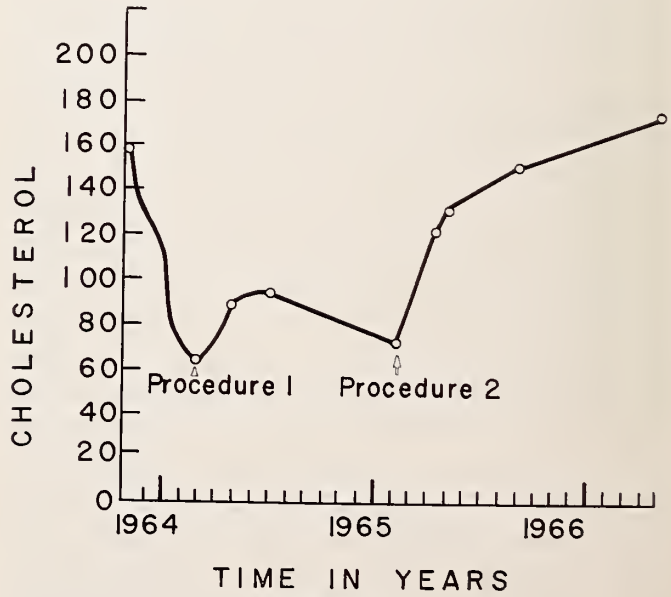


FIGURE 3

V. Cases 7 and 8 had clinical gouty arthritis, moderate symptoms and elevated uric acids (See Table III). After a moderate amount of weight loss, uric acid levels in case number 7 returned to normal levels. Case number 8 has not had any follow-up uric acid studies except one on July 1, 1967 that was 4.0 mg.%. Both of these cases have been free from the symptoms of gout for more than 12 months.

TABLE III

GOUT

Date	Uric Acid Case 7	Uric Acid Case 8
Oct. 65	8.6	9.0
Mar. 66	9.3	
Apr. 66	6.5	
Sept. 66	2.4	
Dec. 66	2.0	
Apr. 67	4.7	
July 67		4.0

VI. Cases 2 and 6 were clinical diabetics (See Figure 4). Case number 6 had a mild diabetic curve with no symptoms of diabetes. After weight loss, all of these diabetic curves were flat.

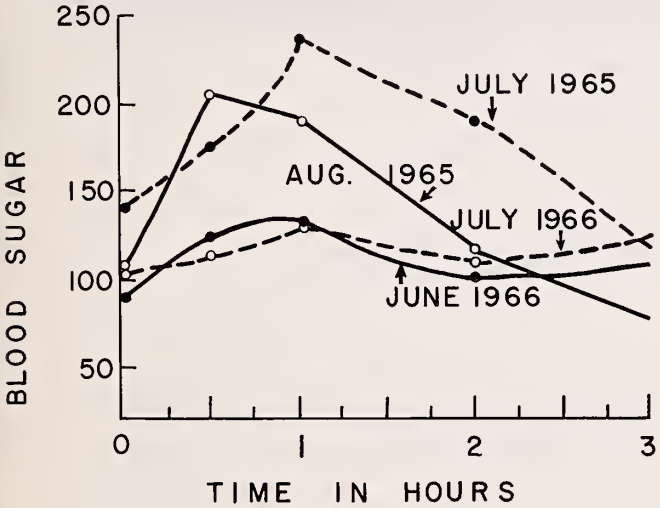


FIGURE 4

Broken Line—Case 2
Solid Line—Case 6

VII. All patients lost weight; however, the amounts were disappointing in one case (See Table IV), fair in five cases and excellent in eight cases. Due to the number of failures with the jejuno-ileostomy (Procedure 2), apparently some of these people have too much functioning small intestine. For this reason, more recent cases (24 in number), have had even shorter amounts of functioning bowel left; however, it is too soon to evaluate the results of these cases. Dr. Payne[2] concluded after experience with about 30 patients that 14 inches of functioning jejunum, and 4 inches of functioning ileum was the most satisfactory procedure in his shunts.

TABLE IV

RESULTS IN WEIGHT LOSS

Excellent (70-115 lbs.)	8
Fair (40-70 lbs.)	5
Disappointing (30 lbs.)	1

Conclusion

Fourteen cases of intestinal short circuiting procedures have been presented demonstrating that people will lose weight by this procedure. However, with the jejuno-transverse colostomy (Procedure 1), the side effects are too great for its general use and the jejuno-ileostomy (Procedure 2) needs more evaluation and a longer follow-up time before it can be recommended for general use. In selected cases with marked health hazards due to the obesity, modifications of these procedures are well worth considering.

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CULLEN'S SIGN ASSOCIATED WITH A CASE OF COMBINED PREGNANCY—A CASE REPORT

Frank Q. Smith, M.D., *Valdosta*

COMBINED PREGNANCY (concomitant extra- and intrauterine pregnancy) has been known since 1708 when the first case was reported from autopsy findings.[10] Cullen's Sign was first described in 1919.[2] The following is a case in which the two have occurred together.

Case Report

A 23 year old Negro, $G_7P_3A_4$ (3-0-4-3) last menstrual period 15 March 1964, was first seen in the Emergency Room of Grady Memorial Hospital on 6 June 1964 with a history of lower abdominal pain, nausea and vomiting, and "gas pains" in her right shoulder and arm for several hours. There was no history of vaginal bleeding. Examination revealed BP 90/60, R 40, P 72, T 98.6°. The abdomen was obese with some tenderness but no rebound. On pelvic examination, the uterus was eight weeks in size; the cervix was blue with a closed os; and the adnexa were difficult to outline due to tenderness. Culdocentesis was not done. The patient was treated for gastroenteritis and given an appointment to the Obstetrical Clinic.

She was next seen in the Emergency Room on 17 June 1964, with a history of abdominal and shoulder pain and dizziness and weakness for several days. There had been no vaginal bleeding and her vital signs were stable, BP 112/70, P 92, R 18, T 99.4°. The hematocrit was 31 per cent. The abdomen was distended; there was generalized tenderness and no masses were palpable. There was an area of ecchymosis approximately 3 x 4 cm. in diameter about the umbilicus (Figure 1). Pelvic examination revealed a closed, blue, soft, cervix. The uterus and adnexa were not outlined due to doughy tender lower quadrant. The cul-de-sac was bulging and culdocentesis produced 10 cc. of dark blood which did not clot and contained small flecks of old clot. The preoperative diagnosis was ruptured ectopic pregnancy with hematoperitoneum.

An exploratory laparotomy was done and a ruptured right tubal pregnancy was found. There was also a fetus of 10 to 12 weeks size en caul along with approximately 1500 cc. of old blood and blood clots in the abdominal cavity. The uterus was soft, boggy, globular, 12 weeks in size with no palpable fetal parts. A coexistant intrauterine pregnancy was suspected. The left tube and ovary were normal. The site of the corpus luteum was not recorded. A right salpingo-oophorectomy and modified Coffey suspension were done. A cornual resection was not done because of the suspected intrauterine pregnancy. During the procedure the patient received 1000 cc. of whole blood and her vital signs remained stable at all times.

The postoperative course was uncomplicated. Progestational agents were not given. The hematocrit was 34 per cent on the first postoperative day. A chemical pregnancy test on the fourth postoperative day was positive and the patient was discharged on the seventh postoperative day to be followed in the Obstetrical Clinic. The remainder of her pregnancy was uncomplicated.

On 19 December 1964, she spontaneously delivered a normal, apgar 10, 3990 gram male at 39½ weeks gestation. Her postpartum course was uncom-

From the Department of Gynecology and Obstetrics, Emory University School of Medicine, Grady Memorial Hospital, Atlanta.

■ The exact mechanism by which this sign develops has never been proven.

FIGURE 1

plicated, and she was discharged on the third postpartum day.

When last seen in the clinic on 3 May 1965 (4½ months postpartum), the abdominal incision was well healed and the pelvic examination was normal. An intrauterine contraceptive device was inserted. The child has had normal growth and development to date.

Discussion

Combined pregnancy results from the fertilization of two ova which may come from either the same follicle or two separate follicles. Fertilization usually occurs at the same coitus but superfetation has been suspected in some instances. One ovum implants normally in the endometrium; the other is arrested in its course and implants outside the uterus, usually in the tube. The condition is rare with slightly more than 500 cases having been reported.[1] An incidence of one in 30,000 pregnancies, or 0.4 to 0.8 per cent of all ectopic pregnancies, has been given. In a recent ten-year review of 510 cases of ectopic pregnancy at Grady Memorial Hospital,[5] there were three combined pregnancies with an incidence of 0.58 per cent. It is found more commonly in the multiparous woman above 30 years of age.[11] The site of extrauterine implantation may be the tube, ovary, or abdominal cavity. There have also been reports of interstitial implantations.[3]

The symptoms are usually those of ectopic pregnancy, since it is the extrauterine pregnancy that terminates first in over 60 per cent of the cases. However, in approximately 25 per cent, it is the intrauterine pregnancy that terminates first with the diagnosis of the combined pregnancy frequently missed. In the patients in whom the intrauterine pregnancy terminates first, the diagnosis of ectopic pregnancy is not made for many hours to several days later in approximately 50 per cent. In eleven cases, both the intra- and the extrauterine pregnancies have gone past 32 weeks, with delivery of viable infants in some of these.[11]

Suspicion of combined pregnancy should be aroused by the presence of an adnexal mass, unilateral pelvic tenderness or pain persisting after D and C, and/or hematoperitoneum on culdocentesis in the presence of an obvious abortion. Similarly, the findings on examination in a patient with suspected ectopic pregnancy of a closed cervical os, minimal or no vaginal bleeding, and a fundus compatible with the dates (especially if more than eight weeks) should arouse suspicion of a coexisting intrauterine pregnancy. Similarly the finding of two corpora lutea or an enlarged, soft, globular uterus at laparotomy should also arouse suspicion.[7] In these instances a curettage or hysterectomy should not be done until an intrauterine pregnancy is ruled out.

Cullen's Sign is a discoloration of the umbilicus, the periumbilical area, or other areas of the abdominal wall, such as surgical scars, by blood and blood pigments giving the appearance of an ecchymosis or bruise. The original description was published in 1919 by T. S. Cullen, who described this finding in a woman with a ruptured ectopic pregnancy.[2] Prior to Cullen's description, Ransofhoff, in 1906, had reported jaundice localized to the periumbilical area in a male patient with a ruptured common bile duct.[6]

It was this report which prompted Cullen to make the preoperative diagnosis of ruptured ectopic pregnancy in his patient.

Hofstatter's Sign is occasionally found in patients with umbilical hernias when hematoperitoneum is present. In these patients the umbilicus appears blue as a result of seeing the intraperitoneal blood through the hernia sac. There is no blood present in the periumbilical tissue, as in Cullen's Sign, and the color disappears after removal of the blood from the peritoneal cavity. This sign was first described by Hofstatter in 1909, in a patient with a ruptured ectopic pregnancy and also a strangulated umbilical hernia.[10] This patient had a bluish coloration of the umbilicus but it was questioned whether or not this was due to the hematoperitoneum or to the several attempts at reduction of the hernia.[8] Since that time, other cases demonstrating Hofstatter's Sign have been reported (without strangulated hernias). A case has also been reported that demonstrated both Hofstatter's Sign and Cullen's Sign.[10]

The Grey Turner Sign,[6] which is a dirty brown discoloration usually in the flank but occasionally in the periumbilical area, has been seen with acute pancreatitis. This is caused by the action of pancreatic enzymes in fluid which extravasates retroperitoneally and localizes in the flank or umbilical area. Turner's Sign should not be confused with Cullen's Sign although the latter has also been found with acute pancreatitis.[10]

Cullen's Sign has been most frequently associated with ectopic pregnancy since this is the most common non-traumatic cause of hematoperitoneum. It may also occur in other conditions producing hematoperitoneum such as ruptured spleen, ruptured uterus, ovarian cyst, and others. Cullen's Sign has also been found in patients having no intraperitoneal bleeding and has been described in patients with unruptured tubal pregnancy, pyosalpinx, paravaginal hematoma, hematoma of the rectus sheath, and endometriosis.[8]

The mechanism by which this sign develops has never been proven, but it is thought to arise from blood seeping through "abnormal apertures"[6] in the peritoneum such as might occur in patients with previous surgery or congenital peritoneal defects. Lymphatic spread to the umbilicus from the pelvic region and broad ligaments has been demonstrated by studies in monkeys using Sky Blue Dye and radioactive gold.[8] It is thought that the blood reaches the umbilicus via the lymphatics in cases associated with no intraperitoneal bleeding. Full thickness abdominal wall biopsy done in one patient with a ruptured ectopic pregnancy and hematoperitoneum failed to show any blood in the lymphatics but did show blood present in the tissue spaces.[6] No histiological studies have been reported in a patient showing Cullen's Sign and no hematoperitoneum. It is quite possible that this sign may develop by these two entirely separate modes.

Summary

1. A case in which Cullen's Sign was present in a patient with combined pregnancy is reported.

2. Combined pregnancy is briefly discussed and emphasis placed on considering its existence in certain cases.

3. Cullen's Sign is discussed and differentiated from the Hofstatter Sign and the Grey Turner Sign.

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GROUP BEHAVIOR MEETING TO BE HELD OCTOBER 18-21

Georgia's Fourth Annual Institute on Group Behavior and Group Leadership will be conducted by the Department of Psychiatry, Emory University School of Medicine, at Callaway Gardens on October 18-21, 1967.

Principal speakers will be Dr. Jacob Christ, a well known Bostonian and authority on group behavior; Dr. James Alford, Assistant Professor of Psychiatry at Emory; Judge Curtis Tillman, a well known authority in the field of juvenile delinquency, and Rev. Bevel Jones, who is an outstanding community leader.

For information concerning pre-registration write or call: Institute on Group Behavior and Leadership, Att.: Mrs. Louise Hanna, Department of Psychiatry, Emory University, Atlanta, Georgia 30322.

"THE CASE OF MRS. RUTH LAMOTTA"

Michael Halberstam, M.D., *Washington, D. C.*

MRS. RUTH LAMOTTA is a 43-year-old patient of mine with one husband, one job, three children, and countless pains. One week her throat hurts, another her back. She is plagued by colds which prevent her from working. She thinks her sinuses might be infected. She feels tired and is sure she has the flu. Her eyes get "weak all over" at work and she is afraid she has glaucoma. Mrs. LaMotta is sure her body is gravely ill. I am sure it isn't.

The really sick or injured patient does not ask for credentials. Yet when new patients come into my office for what often turns out to be a minor complaint, their eyes scan my diplomas in an attempt to find some objective, documentary evidence of my competence. Concern about the professional level of the medical care we receive is often the luxury of the neurotic or the not-so-ill. Furthermore, such concern often has little medical rationale. The average Coronary Care Unit nurse or intern, for example, is better able to handle emergencies *in that setting* than the average physician; and even the greatest gastroenterologist in the country will be unable to persuade Mrs. LaMotta that her belching isn't a symptom of cancer.

Mrs. LaMotta! Presidential commissions may come and go, but Mrs. LaMotta will remain. I will grow old and weak, but Mrs. LaMotta will continue to flourish, implacably convinced that she has cancer. Or diabetes. Or whatever disease will be current in 1984. People with advanced degrees will submit cunning proposals on how to rationalize medical care, but squarely athwart these proposals will loom Mrs. LaMotta. In light of her professed ailments, her functioning is as implausible as that of the fabled insect which flies despite its scientifically proved aeronautical inadequacy. It is on Mrs. LaMotta that many lovely schemes for rationalizing medical care—that is, delivering the most care to the sickest persons—have foundered already, and upon whom many will in the future.

A Casualty of Our Civilization

For Mrs. LaMotta is a neurotic, a casualty of our civilization. Whether her kind is increasing is a debatable point—doctors since Galen have felt surrounded and besieged by neurotics—but there is some good evidence to suggest that her type of illness is definitely more common. A second-generation American, she is in many ways better off, and even happier, than her parents. She has more education and more money. She is less likely to become schizophrenic than the really poor Negroes and Puerto Ricans who have moved into the slum she grew up in. But, as the studies of A. B. Hollingshead and F. C. Redlich in New Haven and L. E. Hinkle, Jr., and H. G. Wolff in New York both indicated, she was (according to statistics on her social and ethnic group) more likely to develop a neurosis. And she did what was expected of her.

Psychiatrists don't want to see such patients—they're not sick enough—and, besides, there aren't enough psychiatrists to go around. Mrs. LaMotta comes to me. While I consider myself to have at least average empathy, tact, medical knowledge and human insight, and while I was taught in medical school that 60 to 80 per cent of patients' complaints arise in or are accentuated by emotional conflict, I confess that Mrs. LaMotta is at times a trial. And I know that her fellow-sufferers are an equal trial to my colleagues. Twenty-five per cent of all physicians list "problem patients," mainly neurotics, as their chief annoyance in medical practice.

* *Excerpts from "Patients Who Make the Doctor Feverish," The New York Times Magazine, February 5, 1967. By permission of the author.*

Resentment of the neurotic patient is not a new or American phenomenon. In trying to explain the emigration crisis in British medicine today, Gilles Cremonesi wrote in the English magazine, *New Society,* "Practitioners in this country . . . are forced to spend most of their lives treating minor complaints, psychosomatic complaints they can't hope to cure, and long-term chronic illnesses they can do little to alleviate. In America, they hope they will not feel threatened by unnecessary patients or horrifying midnight excursions to false alarms . . ."

The element of hostility that is implied in these statements—and in my mentions of Mrs. LaMotta—stems from the very real ambivalent elements in the doctor-patient relationship, elements that are far removed from the usual economic analysis of that relationship (Mrs. LaMotta, like many neurotics, pays very promptly). My colleagues and I entered medicine because, basically, we were activists. We wanted to help people, believed they could be helped, and wanted the satisfaction of seeing our efforts get results.

We knew people needed to be reassured as well as given injections, and we knew that many complaints of bodily malaise stemmed from or were accentuated by emotional conflict. We had confidence in our own ability to scent out the emotional conflicts lurking beneath the somatic symptoms and to reassure the patient. What we were not prepared for, perhaps, was the apparent regularity with which our insights would be denied and our reassurance rejected.

Thus when Mrs. LaMotta came in last month complaining of weakness at work and wondering if she had low blood sugar (she had just seen an article about that in the Sunday paper), I asked the appropriate questions about the kind of weakness and its timing, I examined her carefully (in a sense the easiest part of the evaluation), and obtained the appropriate lab tests. All of the findings were consistent with a neurotic depression. I asked Mrs. LaMotta in a general way how things were at work. Fine, was the answer. Did she like it? It was about the same, she said (she had previously told me that the work was dull and that she didn't enjoy it, but the family needed the money for a second car). Was there any particular trouble with a co-worker? No. With a supervisor? No.

Proceeding from general questions to the most direct opportunity to let the patient ventilate her fears, I had discovered that all was rosy with Mrs. LaMotta. Life couldn't be better. I didn't believe it—but I didn't say so. I congratulated her on not having a low blood sugar. I mentioned that I thought some of her fatigue might come from working too hard, and suggested she might take some time off. I suggested that there might be something bothering her unconsciously about her situation at work, and that this concern might have been making her tired. And, God forgive me, I gave her a prescription for a mild anti-depressant, and suggested that she call me back in one week. She did. The symptoms were still present, and she wondered whether her thyroid might be underactive.

Money Under False Pretenses?

A physician in these circumstances might well wonder if he is accomplishing anything and if, in fact, he is taking money under false pretenses. He has made an effort and when it comes to nought, he resents the patient who involved him in that effort. He may feel guilty about taking money and having accomplished nothing, and he may feel guiltier if he orders more tests and takes more money.

On the other hand, neurotics may develop cancer and, if tests aren't done, anguish and malpractice may result. The remote possibility of disaster looms every time a physician reassures a neurotic patient. Because of complexities such as these, physicians are often more willing to accept a poor patient with an interesting or treatable disease than the wealthy neurotic.

Some Americans may have learned to shut out some of the more common forms of huckstering, but they still listen when the executive director of the New York Diabetes Association says that there are 75,000 undiagnosed diabetics in the city. They listen and they worry. Their own physician may have told them not to worry about diabetes, but when newspapers, TV ads, subway posters and leading scientists all urge them to be checked for undiagnosed diabetes, they can't help but worry about whether their doctor knew what he was talking about.

It is possible, of course, that one's physician doesn't know what he is talking about. It is also possible, however, that he and the executive director of the New York Diabetes Association are talking about two different things. My feeling, and that of many other physicans, is that many of the undiagnosed "diabetics" being found are older people with high blood-sugar levels; that it has not been proved that their high blood sugar causes increased hardening of the arteries; and that it has not been proved that lowering the blood sugar would slow up this hardening. These, I believe, are areas of legitimate scientific study, but should not provide the basis of public education programs.

Perceptive internists or general practitioners can't help being unenthusiastic about many of the disease detection programs being promoted today.

Knowing the limitations of clinical medicine, they are often more diffident than lay or lab people in promoting it. The sponsors of such programs may be able to say in good conscience, "Even if we detect just one case of X Disease early, it will have justified all our time, effort and money." The money, by the way, is often the taxpayer's. The surgeons may be able to cite some cases of early cancer which they operated on. The internists and G.P.'s, however, are the ones who do the screening, the ones who have to perform the estimated 5,000 routine proctoscopic examinations before finding a single early cancer, the ones who have to reassure the elderly ladies that their "diabetes" found at the Health Department's "Diabetes Fair" is perhaps not the same disease that killed their 16-year-old neighbor.

Follow-Up Studies

We are the ones, in addition, who have to order the follow-up studies and hospitalization when "routine" or "screening" blood tests turn up a slightly abnormal result. At times we may be personally unenthusiastic about such additional studies, but we are aware that we might be held liable for malpractice if a serious condition appears later. So, just to be safe, we order the tests (after all, society expects them, science suggests them, the patient is willing, and we may get paid more).

When the expensive tests turn out negative, the patient, who previously was feeling fine, is supposed to feel even better. If the tests are positive, the doctor has the rare feeling of having nipped a significant disease early. And if, as sometimes happens, the tests themselves have a serious or even fatal outcome, we can always console ourselves that we were acting in full scientific faith.

Thus, today, the doctor's phone rings more often. More people who haven't slept for two weeks, who haven't eaten a thing for a month, who still have that terrible burning in their throat. Since the doctor can't end the war in Vietnam—any more than he can bring back the father who deserted his family, or quiet the nagging wife, or turn off the warning announcements about cancer—he must treat the symptoms, not the cause. He tests, explains and reassures. Frustrating as this kind of treatment often is to both patient and doctor, it frequently achieves results of a definite, but subtle nature.

As Charles Thompson, another Washington internist, says, "You have some patient who's in your office twice a week and on your phone all the time with symptoms that terrify her. You try to reassure her, and nothing seems to work. Then all of a sudden you realize that she hasn't called you for a couple of weeks. You don't see her for a year or two and then she comes in for something else and you ask her about whatever was bothering her before, and she says, 'Oh, I still have that, but you explained that it wasn't serious and it doesn't bother me any more.'

"You've gotten her back on her feet. That's a real accomplishment—any fourth-year medical student can take care of congestive heart failure, but you handled something really tough and you've got a human functioning again—back on her job and with her family. That's medicine!"

It helps, too, when the physician is aware of his own involvement with even his most trying patients. I have noticed that when my most neurotic patients, the ones who have plagued me beyond endurance at times, inform me that they are going to another doctor, I am genuinely hurt. A hundred times I may have wished to be free of a particular patient, but when she actually leaves me, I feel depressed. She was my patient. I thought I was helping her. I was sure that I was helping her more than anyone else could. When she left me, I knew I had failed.

But, ambivalent to the last, I add that now that she's gone, don't send her back.

INTERNISTS TO HOLD REGIONAL SCIENTIFIC MEETING AT SEA ISLAND

The American College of Physicians (ACP) will hold a regional scientific meeting for specialists in internal medicine in six southeastern states Sept. 29-30.

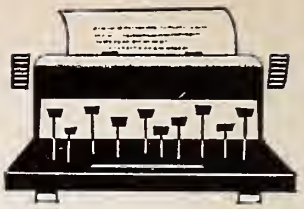
The meeting will be held at The Cloister, Sea Island, Ga. Internists from Alabama, Florida, Georgia, Louisiana, Mississippi and South Carolina are expected to attend.

The Southeastern Regional meeting is one of some 35 scientific-educational meetings sponsored during the academic year by the ACP. Held throughout the United States and Canada, the meetings held keep the College's 13,600 members abreast of developments in the basic sciences and clinical medicine.

Among special guests will be Rudolph H. Kampmeier, M.D., Nashville, Tenn., ACP President and Professor Emeritus of Medicine at Vanderbilt University and Edward C. Rosenow, Jr., M.D., Philadelphia, Pa., ACP Executive Director.

The meeting is being planned under the general direction of Tully T. Blalock, M.D., Atlanta, Ga., ACP Governor for Georgia, Assistant Professor of Medicine, Emory University School of Medicine.

EDITORIALS



GaMPAC Sets Statewide Workshop For All Physicians and Wives

If there's one thing there ain't no shortage of these days, it's meetings. One has to be selective.

On October 14, GaMPAC will hold its first annual Workshop Conference at the Regency-Hyatt House in Atlanta. All physicians and their wives are invited and urged to attend. We know everyone is busy. We know also that this is one meeting you owe it to yourself and the profession to attend. It's that important.

The Workshop has been designed as a practical course in practical politics—and for a very practical reason. The medical profession and its individual practitioners are deeply involved in the political process that affects their practice, their lives, and those of their children. This is so whether anyone likes the idea or not. It didn't have to be this way, but it is, for the very simple reason that most of us did not become concerned about and active in political affairs 10 years ago. Because of our apathy the profession is now receiving the bitter rewards of a national political philosophy that at times seems totally unconcerned with the wishes or desires of physicians. THE TREND CAN BE REVERSED.

The GaMPAC Conference has taken as its purpose the job of showing physicians and, most importantly, their wives, how to multiply the smallness of their numbers to the maximum—how to be politically effective in Georgia—how to win. To do this GaMPAC has assembled an outstanding group of professional and non-professional politicians to speak on and to demonstrate the techniques of political success.

The Workshop will convene at 1:30 p.m., Saturday, October 14 and will adjourn at 4:45 p.m. It is tightly organized for maximum exposure to the fundamental each of us must learn. This is your opportunity, perhaps your only opportunity, to learn what politics is really about and how we may effectively influence the 1968 Congressional elections, the outcome of which will be vital to the profession and to our patients.

The temper of our times is clear. We must seek political solutions to political problems. But before this can happen, we must learn how. You can't send a boy to do a man's job, and GaMPAC's job is man-size any way you look at it. Plan to attend this Conference with your wife. Let's learn now what we have to do while there is still time to learn.

Our House of Delegates—Its Aftermath

One hundred sixty-one duly elected Delegates to the Medical Association of Georgia, representing the Association's 74 component county societies, meet annually to conduct the business of the Association. At these sessions of the House of Delegates, held in conjunction with the MAG Annual Meeting, reports and resolutions are introduced, considered by Reference Committees, and debated. The Delegates, by their final vote, set the course of the Association activity for the ensuing year.

In addition to presiding at sessions of the House of Delegates of the Medical Association of Georgia, it is the duty of the Speaker of the House to review all House actions to insure the intent of these policies is carried out in behalf of the Association.

Forty-seven separate actions were taken by the

MAG House of Delegates at the May 2, 1967 meeting. Each of these actions has been studied and referred to the proper committee, agency or organization for implementation. This activity required 62 separate communications which cited the report or resolution and the House recommendation, and which requested action or response by the appropriate parties. Monthly review reveals the need for additional letters during the year when there is no response or little action.

The progress of implementation of the decisions of the House is evaluated by your Speaker and Vice Speaker quarterly, just prior to meetings of the Council. Your Speaker, acting for the Delegates and the members they represent, gives a full report on the progress to Council. Through this system of review and report during the year, the integrity of the House actions is maintained by the Association between sessions of the House. The Association can be assured that its policies are adhered to and its recommendations are implemented.

Your Speaker and Vice Speaker will continue to follow through ("watch-dog") the intent, wishes and actions of the House of Delegates. This report to the membership is submitted to inform the profession that "its will be done."

J. Frank Walker, M.D., Speaker
MAG House of Delegates

Obesity and Energy Expenditure

OBESITY IS AN INCREASE in body weight as a result of excess accumulation of fat. It is then apparent that obesity is not defined by the patient's weight on the physician's scale, since any individual in fine physical condition can have an increase in body weight due to an accumulation of muscle. No physician in his right mind would try to make a physically fit professional football player lose weight because this athlete did not conform to the particular life insurance indices provided to the physician.

Since obesity is the result of excessive accumulation of body fat, the best way to determine obesity is with a tape measure. Body fat accumulates in places other than normally occupied by muscle; it is quite simple to see whether the weight on the scale is the result of muscle or superfluous body fat. If the physician wants, he can use skin fold calipers, or to be most precise, he would measure body density. However, the most practical way to study patients is to use a tape measure, and to measure the chest or bust, the waist, the mid-arm and the mid-thigh. Excessive body fat becomes quite apparent when these measurements are taken; subsequently, objective measurement is available to follow the course of the patient's response during treatment. All men know that when a young lady of reasonable height measures 36-24-36, no one is concerned about her weight.

The biochemistry of obesity is receiving considerable investigative attention. As yet, no definitive chemical abnormality has been found to explain obesity. The majority of the evidence indicates that the person is fat because he or she is forcing his or her metabolic pathways primarily in the direction of fat synthesis. The net result is fat accumulation, and the ultimate conclusion is that more energy is being consumed and stored than is being burned by the patient.

The increase in obesity in our population is a direct result of the abundance of food, labor saving devices, the automobile and television. Our whole philosophy of status is to have more, and do less. This problem has even become prominent in our children who, particularly in the teenage groups, have been showing a progressive average weight increase.

It is undoubtedly true that the energy requirement of different individuals varies. This has been known since the earliest days of measuring metabolic rates. Everyone of the same size, age, weight and sex does not burn the same amount of energy. This does not mean that there is an endocrinologic or metabolic abnormality. It just means that individual physical efficiency varies from one person to another. Undoubtedly, this may contribute to obesity since the fuel utilization, or miles per calorie is not identical between two persons of the same height and age. Thus, the person who has an inefficient engine, performing a given task, burns more energy and can eat more food than the efficient person, who with the same task and food intake, might gain weight. There is an old statement that fat people are graceful dancers. Of course, to a scientist, it should immediately appear that this is ridiculous since being fat could not possibly make anybody more graceful. However, being graceful (which means moving with a minimum of effort) could certainly help make one fat. Thus, the individual's level of energy expenditure is built into the person's chemical makeup, and the physician has to be able to relate these facts

to the patient in helping the patient gain an understanding of the necessary steps that must be taken in controlling excessive body fat.

The major cause of obesity in the patients seen in our office today is the result of their inactivity. Mayer's[1] study in obese adolescents showed definitely that they had a lower physical activity level than their lean counterparts. Recently, we have done a comparable study in a group of obese and lean adults[2] and obtained similar findings. When a study of the daily activities of these people in their natural environment was done by measuring the amount of time they spent sitting down, lying down, or on their feet, it was observed that the lean patients averaged one hour a day less in bed and 23 per cent more of their time on their feet than the obese patients. It is thus clear that an important way to remove fat from the body logically is to burn it up, and the most neglected therapeutic way to stimulate weight loss is to burn more energy by exercise. Thus, physician supervised and encouraged physical conditioning has a major role in the treatment of obesity.

REFERENCES

1. Mayer, Jean: Inactivity as a major factor in adolescent obesity; *Annals of the New York Academy of Sciences* 131:502-505, October 8, 1965.
2. Boom, Walter L., M.D., and Eidex, Marshall F., M.D.: "Inactivity as a Major Factor in Adult Obesity." Accepted for publication in *Metabolism* on October 25, 1966.

Walter L. Bloom, M.D.
Atlanta

It Is Better to Give

To become a doctor is a difficult task. Remaining a good doctor is even more difficult. When a medical degree is earned the doctor is automatically granted the status that may take other men years to attain. As rank has its privileges, so does a medical degree. These privileges are accepted and appreciated by all sensible physicians.

How many doctors remember the responsibilities they accepted with their internship? It did not take long to realize that with the privileges of being a physician the young doctor had also to accept these responsibilities. Sometimes they are forgotten. Life is easier that way. Fortunately for the profession, responsibilities are generally met; grudgingly perhaps, but met.

Autumn is the traditional season for Community Chest and United Fund campaigns throughout the land. In Georgia more than forty communities have fund drives, either individually or corporately. As community leaders, we must accept our responsibility once again, by giving our time in working for these fund drives, and sharing our resources in proportion to our abilities. Parsimony is not acceptable for the responsible physician, nor indeed, for any responsible citizen.

Edwin Markham expressed it this way:

"Why build these cities glorious
If man unheralded goes?
In vain we build the world, unless
The builder also grows."

United Appeal of Metropolitan Atlanta
Nicholas Davies, M.D.
Chairman, Physicians Division

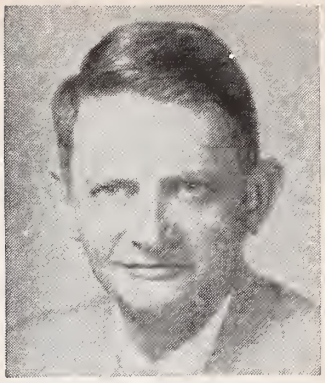
TRAFFIC SAFETY LEGISLATION MEETINGS PLANNED FOR STATE

The Traffic Safety Committee of the Medical Association of Georgia and the Georgia Safety Council, Inc., will co-sponsor nine meetings on traffic safety across the state in early October.

These one-day meetings will be concerned with informing the public on proposed safety bills to be presented to the Georgia General Assembly in its 1968 session. They will be held in Augusta on Monday, October 2; Savannah, Tuesday, October 3; Waycross, Wednesday, October 4; Albany, Thursday, October 5; and Columbus, Friday, October 6. The next week the meetings will be held in Rome on Monday, October 9; Gainesville, Tuesday, October 10; Macon, Wednesday, October 11; and Atlanta on Thursday, October 12.

Each meeting will begin at 10 a.m. Further information may be obtained from Fleming Jolley, M.D., Chairman, Traffic Safety Committee, MAG Headquarters, 938 Peachtree Street, N.E., Atlanta 30309.

PRESIDENT'S LETTER



PLANNING AND DEVELOPMENT

SEVERAL YEARS AGO the Executive Committee of the Medical Association of Georgia held a special meeting each year called the "Big Think" meeting. These were held on week-ends. The Executive Committee would sit around in relaxed surroundings without an agenda and discuss the problems of medicine. I do not recall any new ideas resulting from these meetings; however, a unanimity of opinion concerning certain problems was reached that served us well at the time.

In June at the Atlantic City meeting of the American Medical Association, the Board of Trustees recommended that a Committee on Planning and Development be established.

It might be well to study the reasons for such a recommendation in the light of having such a committee in the Medical Association of Georgia.

The Board of Trustees established the following charges for this Committee:

(1) Study and make recommendations concerning the long-range objectives of the Association.

(2) Serve as a focal point for the planning activities of the Association and stimulate and co-ordinate planning activities throughout the organization.

(3) Study, or cause to be studied, medicine and the environment in which the Association must function and transmit the conclusions of these studies to the appropriate decision-making centers.

A part of the Board of Trustees report was excerpts from a report of the Committee to Study Planning and Development Techniques. Some of the conclusions of this report should be considered while you are deciding if MAG should have a Planning and Development Committee.

The responsibility for planning should not be separated from the responsibility for managing the affairs of the Association. This committee realized the possibility and advantages of having a separate group for planning alone, but also recognized that the future of the Association will be determined by the cumulative effect of the decisions made by the House of Delegates, Board of Trustees, various councils and committees. However, the wisdom of these decisions depends on more complete information and unbiased predictions of the future.

The planning process must be tailored to fit the uniqueness of the Association. Most organizations have a small group and many have only one person responsible for policy decisions while the Association has many.

A continuing effort should be made to fit into the Association planning the knowledge and insight of many disciplines.

Finally the Association must recognize that its present organizational structure does present severe limitations and may have to be modified at some future time.

If, after careful consideration, you should believe that such a committee would be of value to MAG, please let me or your councilor have the benefit of your ideas.

John T. Mauldin, M.D.
President, Medical Association of Georgia

RECENT ADVANCES IN SURGERY FOR THROMBO-EMBOLIC DISEASES OF THE VEINS

Julian K. Quattlebaum, Jr., M.D.
Savannah

Venous thrombosis with its potential complication of sudden death from pulmonary embolus continues to occur despite our efforts at prevention. Clinically variable, acute venous thrombosis may be so bland as to present no signs or symptoms prior to pulmonary embolus; or there may be fever, pain and tenderness, and even massive swelling of an extremity if the deep venous return is occluded by thrombus. A point worthy of remembering is the potential occurrence of pulmonary embolus from asymptomatic thrombi in the "good leg" during the course of a massive deep thrombophlebitis in the opposite leg.

The primary therapeutic approach should be non-operative. Heparin for the first few days followed by Dicumarol (or one of the related drugs), administration of local heat, elevation of the affected extremity, and the administration of anti-inflammatory enzymes is a sound initial regimen. However, surgery must be considered without delay if prompt resolution does not occur under medical management.

Superficial Thrombophlebitis

The thrombosed and acutely inflamed superficial vein can usually be successfully treated non-operatively. The active process can be expected to continue for three to six weeks. Surgical excision or stripping of the involved segment is indicated if progressive extension or repeated episodes occur.

Deep Thrombophlebitis

The characteristic picture of massive and painful swelling of the muscles of the calf or occasionally the entire lower extremity will occasionally respond dramatically to the usual medical regimen. In the majority, however, one can expect the swelling to persist for three to six months and sometimes indefinitely. In severe cases dramatic results may be gained by opening of the deep vein (usually in the region of the sapheno-femoral junction) and mechanically evacuating the clots from the veins of the calf, thigh, and even the pelvis. The degree of success is largely dependent upon the time elapsed between the onset of swelling and the performance of the operation. Good results have been obtained as late as ten days following onset, but the best results have usually been obtained when surgery is performed within the first two or three days.

Pulmonary Emboli

The great majority of pulmonary emboli arise from thrombi in the veins of the lower extremities and pelvis. In recent years procedures have been developed to accomplish the protection provided by ligation of the inferior vena cava, while at the same time avoiding the mortality and morbidity associated with total occlusion of the venous return from the lower extremities. Plication of the inferior vena cava by suturing opposing walls of the cava together at intervals of 5 mm. creates a series of small channels which act as a sieve to filter out clots coming up from below. Also, the application of one of several different types of plastic clips successfully accomplishes the same purpose and seems to offer protection at least equal to caval ligation without nearly the degree or frequency of its undesirable side effects. The correct indications for the prophylactic application of this procedure will become established as experience increases, but unquestionably it should be employed now whenever one would ordinarily consider caval ligation. Whenever acute massive deep vein thrombosis is complicated by pulmonary embolus, combined caval plication and deep phlebothrombectomy should be carried out.

722 Drayton Street

Prepared at the request of the Committee on Professional Education of the Georgia Heart Association.

SINGLE TRAUMA AND CANCER

John L. Moore, Jr., *Atlanta*

THE INTERESTING OLD QUESTION of whether a single trauma can cause cancer is reported in an April 1967 New York case.

In 1952, the defendant's employee caught on fire from a spontaneous ignition of paint containing xylol and synthetic resins. He was on fire for at least a minute and the fire was in and about his face.

In 1960, the employee developed an infection of the right lung. He died in 1964. The cause of death was squamous cell carcinoma of the right upper lobe bronchus.

The widow of the employee sued under the Workmen's Compensation Act for death benefits because of work-connected injury leading to death. As might be expected, the medical experts for the employer testified that there was no causal relationship between the accident and the employee's death. They stated that if he had inhaled a damaging amount of fumes during the fire there would have been immediate symptoms of cough, congestion, or lung disease. Two medical experts for the widow testified that there was a direct causal relationship between the exposure to the fumes during the accident and the employee's subsequent death from lung cancer. They stated that there was evidence of a single extensive exposure to an irritant in the nature of resins and tars, substances which are definitely carcinogenic. The widow's experts stated further that, after considerable investigation, it was their opinion that a single exposure to such an irritant can produce lung cancer and that this was what happened in the case of the decedent.

Legal Medicine

Naturally, based on the amount of scientific knowledge, medical experts would always prefer not to testify either way on such an issue. On the other hand, issues are regularly presented to courts calling for the most likely decision based on imperfect scientific knowledge. This is true when a lay person testifies that he saw a car moving at a particular speed. It is highly improbable that any person scientifically knows the exact rate of speed of a car he has observed moving along on a road. On the other hand, courts always allow lay persons to testify on such matters and leave to the jury the question of how much credence to accord to the testimony of the witness.

In 1907, the French Congress of Surgeons discussed this question. It was discussed again at the Second International Congress on Cancer in Paris in 1910. Based on those discussions and subsequent reports and writings, certain forensic conditions have been stated:

1. It must appear that no tumor existed before injury.
2. The injury must have been of reasonable severity.
3. It must have occurred at the site of later tumor growth.
4. The cancer must arise (or be observed first) within reasonable time limits, often set quite arbitrarily at not less than three weeks nor more than three years after injury.

It is clear that the foregoing conditions are expressions of empiricism rather than scientifically demonstrable statements. To state it another way, it appears that if the foregoing conditions do not exist, there is probably no respectable medical expert who would testify that a single trauma caused cancer.

It is, therefore, quite interesting to see that eight years elapsed in the reported case between the fire and the first occurrence of infection of the employee's lung. Accordingly, it would appear that the widow's medical experts went considerably further than the conditions reported from the French meetings above mentioned.

No medical expert enjoys the obligation to state his best thinking on an issue about which he can have no scientific certainty. On the other hand, cases arise and must be disposed of in courts. Until scientific information as to the cause of cancer is developed, courts and juries must decide cases on the best thinking available short of scientific certainty. Of course, one could easily debate that proposition and state that no plaintiff should prevail in such a circumstance.

Earlier decisions have awarded damages to plaintiffs for cancer "caused" by a single trauma. For example, a 1954 Pennsylvania decision awarded substantial damages to a woman who was injured while alighting from a streetcar. She fell and had a bruise of the breast. Approximately three months later a suspicious tumor arose at the site of the bruise. Surgery showed that the tumor was malignant and the breast was removed. The case showed clearly the absence of a tumor before the injury because of the careful examination medically of the plaintiff on the day of the accident.

Obviously, there is a good deal of difference between the Pennsylvania case and the main case reported in this article.*

Suite 1220
C&S Bank Building

** The main case reported is Casson v. A. C. Horn Co., 279 N.Y.S.2d 244 (April 27, 1967); the Pennsylvania case mentioned is Menarde v. Philadelphia Transportation Co., 376 Pa. 497, 103 A.2d 681 (1954).*

Prepared at the request of The Medical Association of Georgia. Mr. Moore is a member of the firm of Alston, Miller & Gaines, General Counsel to The Medical Association of Georgia.

EMERGENCY MEDICAL STOCKPILE PROGRAM

Georgia Department of Public Health

A most critical and essential requirement in the protection of the citizenry and the maintenance of stable local governments in disasters is provision for continuity of health and medical services. An Office of Emergency Planning Interagency Task Force recently completed a review of the Emergency Medical Stockpile Program. To more closely relate health manpower, facilities, and supplies to the care of the patient during disasters, the Task Force recommended changes in several phases of the Packaged Disaster Hospital Program. It also recommended the provision of "certain critical medical items" in central depots "for use during the first six months postattack." Additionally, it cited the need for a thirty-day supply of essential medical items to be placed in community hospitals. The recommendations are based on the belief that a properly planned and operated Emergency Medical Stockpile Program will contribute immeasurably to insurance for survival in disaster situations. This Program redirection and inventory expansion will provide an improved system of preparedness to assist communities in disaster medical care.

The Division of Health Mobilization, USPHS, with responsibility for the National Emergency Medical Stockpile Program, and the Georgia Department of Public Health, as the State Agency responsible for Emergency Health Service Planning, will cooperate in furnishing plans and resources aimed at the common goal. The Georgia Hospital Association, the Medical Association of Georgia, and the Civil Defense Division, recognizing the need for improving emergency health preparations, offer the full support of their organizations.

Packaged Disaster Hospitals (PDH)

There are 51 Packaged Disaster Hospitals currently in Georgia. The revised Medical Stockpile Program allots a total of 73 PDHs for the State; the additional 22 are to be placed during the next five years. The new Packaged Disaster Hospital will be known as the "10,000 series." PDHs presently stored in Georgia communities will be modified to comply with new standards.

Eventually, all PDHs will be affiliated with community hospitals having 50 beds or more. Hospitals eligible for affiliation with a PDH will be selected on the basis of their size, location, and other factors affecting their probable role in a disaster. This will also facilitate adequate staffing, planning, and training for the utilization of the PDH. In addition, rotation of certain items of the Packaged Disaster Hospital through regular supply channels of the community hospital will keep those items in useable condition. Supplies chosen for rotation will be stored on hospital premises; all other items of the Packaged Disaster Hospital may be stored in a nearby warehouse. The hospital administrator may be responsible for all or part of the PDH in cooperation with Health Department and Civil Defense officials. Health and Civil Defense organizations will give support to the Utilization Plan which will become a part of the hospital's emergency plan.

SYMPTOMS

J. Kenneth McDonald, M.D.
Augusta

An earlier article dealt with three aspects of psychiatric symptoms: Where they come from, what they are doing to the patient now and what they are leading the patient towards. This article will consider the third of these three aspects. Attention to this third aspect can also give clues as to the other two aspects. To obtain information about this third question, one must find out in detail from the patient and others what people (family, etc.) do or do not do in response to the patient's symptoms and what the patient does or does not do himself in response to his symptoms.

It would seem well at this point to mention that symptoms have multiple factors operating in their development, and this article does not mean to imply that people develop psychiatric symptoms for what the symptoms get for them.

Let us use depression (crying, not eating, threatening suicide, looking sad, etc.) as an example. How do people that are important to the patient respond to his symptoms? Do they pet and pamper, give the patient his way, excuse his drinking, get irritated or angry, not scold the patient as much, etc.? What does the patient do as a result of his feeling depressed? Does he kill himself, drink, have an affair, stop working, express more anger and defend himself more than usual, etc.? Other responses of the environment may be more obvious than the above with society rewarding the patient for his symptoms with workmen's compensation, early social security benefits, etc.

If, then, a depression, or for that matter any illness, irregardless of the etiology, occurs in a person who, for instance, has strong needs for a lot of attention but does not know how to go about gaining this attention or in a person who is overly inhibited finds it difficult to express anger or take up for himself, we may find that the symptoms lead to a solution of these problems. The patient then needs the symptoms and a chronic illness results irregardless of the treatment techniques used unless the physician deals with these factors. Otherwise the patient now has a tool with which to excuse himself for expressing anger ("I wouldn't talk that way to my husband if I didn't feel so bad"), or a marvelous tool with which to elicit attention ("the poor thing, let's take her some flowers"). The patient might well wish to cling to these tools unless someone helps him to find better ones to use.

When the symptoms are used in such a manner, we can assume that the patient has unmet needs in these areas and this should raise our suspicion that these same problems may well have played a part in the development of the original disease (such as in a depression). One should note, however, that this in itself is no proof that these factors are operating in terms of etiology of the original disease.

The above, then, are brief examples of many possibilities of how varying psychiatric symptoms can lead to solutions to psychological problems.

1445 Harper Street

Prepared at the request of the Sub-committee on Mental Health of the Medical Association of Georgia.

MAG COMMITTEE REPORT

RURAL HEALTH COMMITTEE

For the past two years MAG's Committee on Rural Health, along with the Georgia Farm Bureau Federation and in cooperation with the Cooperative Extension Service of the University of Georgia, has sponsored a state-wide Conference on Rural Health at the Rock Eagle 4-H Center near Eatonton. The 1967 Conference will be held October 20-21 in conjunction with the National Community Health Week which will be observed during the week of October 15-21.

The Committee is cooperating with the national effort by tailoring the Conference theme to that of the National Community Health Week and also by arranging for maximum publicity during the week. In the past, these meetings have attracted county agents, home economists, physicians, Farm Bureau executives, and others interested in the rural problems relating to health such as local Farm Bureaus, Home Demonstration Clubs and the like.

The Committee maintains excellent liaison with the national rural health program and has recently requested from MAG Council permission to extend an invitation to the AMA Council on Rural Health to consider Atlanta as the site of the 1971 National Conference. A meeting of this prominence would attract approximately 500 persons from around the nation. Confirmation is expected at the fall meeting of the Council.

In order to do a better job for rural Georgia, the Committee has established a Rural Health Advisory Committee charged with the responsibility of advising the medical profession, through its Committee on Rural Health, of the problems in health facing the rural population. This Advisory Committee met in June with representatives from Georgia Press Association, State Department of Vocational Education, University of Georgia School of Veterinary Medicine, Georgia Farm Bureau Federation, Cooperative Extension Service, Georgia Congress of Parents and Teachers, Georgia State Department of Health, and the Medical Association of Georgia. This Committee will play a major role in molding future projects of the Committee on Rural Health.

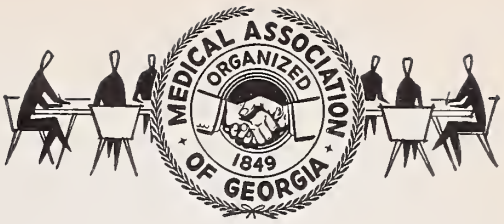
The Committee is alarmed by the large number of farm accidents which continues to cost human lives as well as dollars. A series of farm safety articles is planned for publication in a state-wide farm magazine beginning in the early fall. It is the objective of the Committee to point up to farm families ways and means of establishing better safety measures on farm equipment as well as in the home in order to reduce costly accidents.

Also, the Committee is working jointly with MAG's Committee on Traffic Safety toward reducing highway accidents, as a large percentage of highway accidents occur on Georgia rural roads and many times farm families are victims. A number of proposals are under advisement including a series of bills which will be introduced in the next General Assembly in the interest of establishing better and firmer laws concerning motor vehicles and those who operate them.

The Committee on Rural Health is encouraged by the cooperation of numerous organizations around the state that are concerned with improving the health of rural Georgia. Any suggestions or comments from the medical profession concerning the Committee's activities will be welcomed.

Thomas N. Lumsden, M.D., Chairman
MAG Committee on Rural Health

THE ASSOCIATION



DEATHS

Osgood Dilworth Middleton

Osgood Dilworth Middleton, 59, of Hinesville, a practicing physician for more than 25 years at Ludowici, died June 16, 1967 at his home at Half Moon on the Liberty County coast.

Dr. Middleton was graduated from the University of Georgia and the University of Georgia Medical College. He interned at the Atlantic Coast Line Railroad Hospital in Waycross and began his practice at Ludowici in 1937. He built and operated the Middleton Hospital at Ludowici and closed it when he went to Hinesville to practice five years ago. He was active in the building and operation of the Liberty Memorial Hospital at Hinesville where he was Chief of Staff.

Dr. Middleton was a member of Midway Methodist Church and a member of the Board of Stewards.

Survivors include his wife, the former Elizabeth Parker of Waycross; his three children, Miss Kay Middleton of Savannah, Mrs. Tom Cofer of Augusta, and Dilworth Middleton, Jr.

Walter Arthur Miller

Walter Arthur Miller, 89, of Arabi, died June 30, 1967 in the Crisp County Hospital. Dr. Miller was a native of Illinois and had lived in Arabi about 60 years.

Dr. Miller attended the University of the South at Sewanee, Tennessee, and was graduated from Emory University. He served as a major in the U.S. Army in World War I. He was a member of the Arabi Methodist Church, Masonic Lodge, American Medical Association and the Crisp County Medical Society.

Dr. Miller is survived by his wife, Mrs. Elah Bedgood Miller of Arabi.

Marcos Fernan Nunez

Marcos Fernan Nunez, 75, Savannah pathologist, died June 18, 1967 at the Oglethorpe Sanatorium after a long illness.

Dr. Nunez was a member of the seventh generation of his family to enter the medical profession. His ancestor arrived in Savannah in 1733 on the second boat bringing settlers to Georgia and was at the time the only doctor in Georgia.

Dr. Nunez graduated from the University of Georgia. He later attended the University of Texas Medical School and received his M.D. degree from the University of Madrid, Spain. After completing his surgical training at the University of Edinburgh in Scotland, he returned to the University of Madrid to study pathology.

Dr. Nunez served as assistant professor of pathology at Vanderbilt University in Nashville, Tennessee, and later spent 20 years as a full professor of pathology at Marquette University in Milwaukee, Wisconsin.

In 1944 he returned to Georgia and was appointed chairman of the pathology department at the Veterans Administration Hospital in Dublin. Dr. Nunez returned to Savannah in 1958 and associated with the Howard Clinical Laboratory.

Dr. Nunez is survived by his wife, Mrs. Mattie Lee Mullis Nunez, and three sisters.

William Henry Wall

William Henry Wall, Sr., 64, a prominent Blakely physician, died July 21, 1967 at Patterson Hospital in Cuthbert.

Dr. Wall was graduated from the University of Georgia School of Medicine in 1932 and began practicing in Blakely in 1935.

He was a former state senator, having served two terms, and was the founder of Wall Hospital in Blakely. He was a former member of the Board of Medical Examiners, a member of the Southwest Georgia Medical Society, the American Medical Association, a member of Phi Rho Sigma medical fraternity and the First Methodist Church of Blakely.

Survivors include his wife, Mrs. Hallie Walker Wall; a son, Dr. W. Henry Wall, Jr., of Jacksonville, Fla.; a daughter, Mrs. E. B. Williams of Bradenton, Fla.; a brother, Charles C. Wall of Ellaville; and a sister, Mrs. Louis Daniels, Montezuma.

John Brooks Woodall

John Brooks Woodall, 78, of Moultrie, died July 13, 1967 after a long illness. He had practiced medicine for 53 years, the last 34 in Moultrie.

Dr. Woodall was graduated from the University of Tennessee Medical College. He was a member of the First Baptist Church of Moultrie and served on several different occasions as County Physician.

Dr. Woodall is survived by his wife, the former Rosa B. Edmondson of Moultrie; two sons, Chalmers Woodall of Atlanta and Charles Woodall of Albany; and his sister, Mrs. Henry Foster of Tallahassee, Florida.

PERSONALS

First District

Herbert Dean Smith has joined **Frank M. Johnston** in the practice of psychiatry and neurology in Pembroke. Dr. Smith was graduated from the Medical College of Georgia and has recently completed his residency in psychiatry and neurology at the Veterans Administration Hospital in Augusta.

The American Academy of General Practice has

re-elected to active membership **Robert Luster Pence** of Metter.

Second District

William C. Arwood, Jr., of Pelham has been re-elected to active membership in the American Academy of General Practice.

The Georgia Heart Association recently honored **Carl S. Pitman, Sr.,** of Tifton at its Nineteenth Annual Meeting in Atlanta. Dr. Pitman served as Tift County Heart Fund Chairman and received a bronze Meritorious Service Medallion for leading Tift County over its 1967 goal.

Third District

Peter Payne, formerly of Augusta, has joined the Doctors Clinic in Ashburn. Dr. Payne graduated from the Medical College of Georgia and interned at the University Hospital in Augusta. He recently completed a tour of duty with the U.S. Navy.

Mack and Martha Clements, a husband and wife team, have opened up practice in Pine Mountain answering the two-year call for a doctor for that community. Both doctors are graduates of the Medical College of Georgia and completed their internships in June at Floyd County Hospital in Rome.

W. E. Coleman of Hawkinsville has been re-elected to active membership in the American Academy of General Practice.

Fourth District

Alexander S. Fitzhugh of Griffin left July 28 for a two-month tour of duty as an AMA Volunteer Physician for Viet Nam.

Fifth District

Three new appointments have been announced in Emory University's School of Medicine. **Edwin L. Rushia** has been named Professor of Anesthesiology; **Roland H. Ingram, Jr.,** has been named Assistant Professor of Medicine; and **Robert D. Milledge** has been named Assistant Professor of Radiology.

The Physicians Wine Appreciation Society organized by **Charles D. Smithdeal** of Atlanta met recently in Atlanta for a wine tasting party. A local wine merchant explained the origin and manufacture of each wine before it was poured for the members.

Omer L. Eubanks of Roswell has been elected to active membership in the American Academy of General Practice.

John Steinhaus, Chairman and Professor of the Department of Anesthesiology in the Emory University School of Medicine, recently returned from Saigon where he spent three weeks as a consultant to the medical school.

Bernard M. Steinau of Atlanta was named President-Elect of the Southeastern Group Psychotherapy Society at its Seventh Annual Institute in Miami Beach July 1 and 2.

Lester M. Petrie and **Eleanor Petrie** have retired from the State Health Department. Dr. Lester Petrie, who has been with the department 30 years, was most recently director of the Preventable Diseases Branch. Dr. Eleanor Petrie has been Director of Nutrition.

Nicholas Edward Davies of Atlanta will serve as chairman of the Physicians Division of the fall United Appeal Drive.

Sixth District

The American Academy of General Practice has re-elected **Curtis F. Veal** of Milledgeville to active membership.

Seventh District

A Chickamauga physician, **Fred H. Simonton,** has retired after 17 years as a member of the Georgia State Board of Health. Dr. Simonton was one of the pioneers in public health work in Walker, Dade, Catoosa and Chattooga counties.

Eighth District

The Hazelhurst Kiwanis Club heard **Gene Blakely** tell about the trip he and his son took to Canada on a motorcycle. Dr. Blakely and his son crossed the United States to California, and went to British Columbia, the Canadian ice fields, Alberta, and home through Yellowstone National Park.

Ninth District

Four new physicians have joined the medical staff of the Hall County Hospital in Gainesville. **Lee Martin,** a native of Jackson, Tennessee, will be associated with **Rafe Banks** and **Edward Estes. James R. Wright** will be engaged in the private practice of ophthalmology; **Charles Cooper** and **Jack Bates,** both psychiatrists, will be associated in a joint practice.

Howard C. McGinty, a native of Augusta, is now associated with the Ellijay Clinic.

Tenth District

Frank E. Randolph and **Mickey M. Crouch** have opened their office for general practice at Peach Orchard Plaza in Augusta.

Seaborn S. McGarity, Jr., has joined **Hervey Cleckley, Corbett Thigpen, William Robison, Ben Moss** and **Jere Chambers** in the practice of Psychiatry in Augusta.

Victor Moore, Associate Professor of Medicine at the Medical College of Georgia, has been named Director of Medical Education and Research at University Hospital in Augusta.

The American Academy of General Practice has re-elected **Asa Daniel Duggan** of Washington to active membership.

James L. Becton has opened an office in the Medical Arts Building in Augusta for the private practice of orthopedic surgery and reconstructive hand surgery. He will also be a part-time instructor in the Medical College of Georgia Orthopedic Department.

GEORGIA HEART ASSOCIATION ELECTS NEW OFFICERS

New officers of the Georgia Heart Association are Haywood N. Hill, M.D., President, 46 Fifth Street. N.E., Atlanta, Ga. 30308, and Dan Burge, M.D., Secretary, 21 Eighth Street, N.E., Atlanta, Ga. 30309.

MAG HOLDS SEVENTH ANNUAL CONFERENCE ON SPORTS INJURIES

The Seventh Annual Conference on the Medical Aspects of Sports was held in Savannah on August 3 in conjunction with the annual meeting of the Georgia Athletic Coaches Association.

The conference, traditionally open to all physicians, coaches, athletic trainers and interested school officials, was sponsored by the MAG Committee on School Child Health. The date and site for the '67 conference were selected to coincide with the state high school all-star football game and the related coaches clinic, thus assuring a large and interested turn-out.

Highlighting the one-day meeting were five physician speakers, a panel of experts on nutrition and the former head athletic trainer for the Detroit Lions professional football team.

Dr. O. B. Murphy, Orthopaedic Consultant to the Athletic Department of the University of Kentucky, delivered a paper on conditioning of athletes. Dr. Ernest G. Edwards of Savannah spoke on "Recurrent Dislocations of the Shoulder"; and Dr. John Dupree, Macon, spoke on "The High School Team Physician—His Joy and Sorrow."

A paper on the "Management of Knee Injuries" was given by Dr. Jack Hughston of Columbus. Dr. Hughston is a consultant to Auburn University and a member of the AMA Committee on the Medical Aspects of Sports. Millard Kelly, RPT, formerly Head Trainer for the Detroit Lions, spoke on "Ice Therapy for Sprains and Strains"; and Dr. Fred Allman, Atlanta, Orthopaedic Consultant to the University of Georgia and the Atlanta Public School System, delivered a paper on "Heat Stress in Football." Dr. Allman is President-Elect of the American College of Sports Medicine of the American Academy of Orthopaedic Surgeons.

Fred L. Allman, Jr., M.D., of Atlanta speaks during the afternoon session on fatalities resulting from heat stress.

A round table discussion on "Nutrition in Athletics" was held during a complimentary luncheon sponsored by the Florida Citrus Commission. The conference was well attended by physicians, coaches and trainers from throughout the state.

GEORGIA HEART ASSOCIATION ANNOUNCES SCIENTIFIC SESSIONS TO BE HELD SEPTEMBER 18 AND 19 AT THE MARRIOTT IN ATLANTA

The Nineteenth Annual Scientific Sessions of the Georgia Heart Association will be held on Monday and Tuesday, September 18 and 19, at the Marriott Motor Hotel in Atlanta. Dr. Haywood N. Hill of Atlanta, President, made the announcement.

Dr. Samuel O. Poole of Gainesville, Scientific Sessions Committee Chairman, reports that speakers will include: Thomas N. James, M.D., Chairman, Section on Cardiovascular Research, Henry Ford Hospital, Detroit, Michigan; Jerry P. Pendras, M.D., Medical Director, Seattle Artificial Kidney Center, Seattle, Washington; William J. Flanigan, M.D., Director, Kidney Transplantation Program, University of Arkansas Medical School, Little Rock, Arkansas; John W. Kirklin, M.D., Professor and Chairman, Department of Surgery, University of Alabama Medical Center, Birmingham, Alabama; Joseph K. Perloff, M.D., Associate Professor of Medicine, Georgetown University Medical Center, Washington, D.C.; and Joseph T. Doyle, M.D., Professor of Medicine and Director of Cardiovascular Health Center, Albany Medical College, Albany, N.Y.

Second largest medical meeting in Georgia, the Scientific Sessions will attract not only Georgia physicians, but also physicians from surrounding areas, who will see and hear of new techniques in diagnosis and treatment of heart ailments. Titles of the scientific papers to be presented are: "Cardiovascular Physical Signs—Recent Additions and Renewed Emphasis"; "Big and Little Coronary Arteries"; "Risk Factors in Coronary Heart Disease"; "The Surgical Treatment of Acquired Valvular Heart Disease"; "The Conservative Management of Chronic Renal Failure"; "The Chronic Hemodialysis Facility: Center and Home Dialysis"; "Clinical Recognition of Congenital Heart Disease"; "Surgery for the Tetralogy of Fallot"; "Some Observations on Sudden Death"; "Possibilities for Prevention and Treatment of Coronary Heart Disease"; "Medical Complications of Chronic Hemodialysis"; and "The Present Status of Renal Transplantation."

Also, panel discussions are scheduled twice during the sessions and will be moderated by Dr. Edward R. Dorney and Dr. Elbert P. Tuttle, Jr.

1967 CALENDAR OF MEETINGS

State

September 18-19—Nineteenth Annual Scientific Sessions of the Georgia Heart Association, Atlanta Marriott Motor Hotel, Atlanta.

September 22-23—Otolaryngology Seminar and Cardiovascular Radiology Seminar, "X-Ray Clues to Cardiovascular Diseases," College of Medicine, University of Florida, Gainesville, Florida.

October 2-3—Tennessee Valley Medical Assembly, Memorial Auditorium, Chattanooga, Tennessee.

October 2-6—The Hospital Medical Staff Conference, sponsored by the University of Colorado School of Medicine, Estes Park, Colorado.

October 5-7—Neurology-Neurosurgery Seminar, College of Medicine, University of Florida, Gainesville, Florida.

October 14—GaMPAC Workshop Conference, Regency-Hyatt House, Atlanta.

October 19-21—Medical Society of Virginia, Marriott Twin Bridges Motor Hotel, Alexandria, Virginia.

October 27-28—Radiology of the Skull, Auditorium, Grady Memorial Hospital, sponsored by Emory University School of Medicine, Department of Radiology.

October 27-28—Burn Research Seminar (Eighth Annual), Guest House Motor Inn, Birmingham, Alabama.

October 27-28—Third College of Medicine Alumni Program, "Infectious Diseases," University of Florida College of Medicine, Gainesville, Florida.

November 3-4—Georgia Academy of General Practice, 1967 Annual Session, Regency-Hyatt House, Atlanta.

May 5-7, 1968—114th Annual Session of the Medical Association of Georgia, Town House, Augusta.

Regional

September 29-30—The American College of Physicians (Southeastern Regional), The Cloister, Sea Island, Georgia.

October 19-21—Southeastern Chapter, Society of Nuclear Medicine, Phoenix Hotel, Lexington, Kentucky.

November 9-11—Southern Thoracic Surgical Association, Sheraton Dallas, Dallas, Texas.

November 13-16—Southern Medical Association, Miami Beach, Florida.

November 17-18—Southern Society for Pediatric Research, Howard Johnson Motel, Charlottesville, Va.

National

September 15-23—American Academy of General Practice, Dallas.

September 20—Symposium on Acute Leukemia and Burkitt's Tumor, Boston Museum of Science, Boston, Massachusetts, sponsored by the American Cancer Society and the National Cancer Institute.

September 25—Society for Pediatric Radiology, Washington Hilton Hotel, Washington, D.C.

September 25-26—Congress on Occupational Health, The Regency-Hyatt House, Atlanta.

September 26-29—American Roentgen Ray Society, Washington Hilton Hotel, Washington, D.C.

September 28-30—American Society for Colposcopy and Colpomicroscopy, Third Clinical Meeting, Americana Hotel, Miami Beach, Florida. Fifth Basic Colposcopy Course, October 1-3.

October 5-7—Association of American Physicians and Surgeons, Annual Meeting, Sheraton-Lincoln, Houston, Texas.

October 21-26—American Academy of Pediatrics, Washington Hilton Hotel, Washington, D.C.

October 21-26—American School Health Association, Miami Beach, Florida.

October 22-23—American College of Preventive Medicine, Fontainebleau Hotel, Miami Beach, Florida.

November 25-26—American College of Chest Physicians (Interim Clinical Meeting), Warwick Hotel, Houston, Texas.

November 26—Ninth National Conference on the Medical Aspects of Sports sponsored by the American Medical Association Committee on the Medical Aspects of Sports, Hotel America, Houston, Tex.

November 26-29—American Medical Association Clinical Convention, Houston, Tex.

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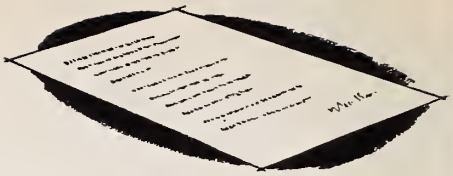
ABSTRACTS BY GEORGIA AUTHORS



Walker, L. G., Jr., M.D.; Stone, H. Harlan, M.D., and Apple, David G., M.D., Dept. of Surgery, Emory Univ. School of Medicine, Atlanta, Ga., "Pseudocysts of the Pancreas: A Review of 59 Cases," Southern Medical Journal 60:389-393(April)1967.

Management of pancreatic pseudocysts demands individualization, depending upon the general condition of the patient and the characteristics of the pseudocyst. Internal drainage, into either the stomach or a defunctionalized loop of jejunum, was performed on the basis of maturation of the cyst wall or its local fixation to some portion of the proximal gastrointestinal tract. External drainage by tube was chosen when the patient's condition contraindicated prolonged anesthesia or when the cyst was friable and thin-walled. Pancreatic insufficiency was commonly found as a late sequel to the underlying pancreatic disease in these patients.

Dimon, Joseph H., III, M.D., Peachtree Orthopedic Clinic, Atlanta, Ga., "Posterior Dislocation and Posterior Fracture Dislocation of the Shoulder: A Report of 25 Cases," Southern Medical Journal 60:661-666(June) 1967.

Posterior dislocation of the humeral head is a rarity accounting for two to four per cent of shoulder dislocations. The diagnosis is frequently missed because the anterior-posterior x-ray may be deceptively normal and the clinical picture may be subtle. Frequently this shoulder disorder is erroneously treated as a bursitis and x-rays are read as negative. A posterior shoulder dislocation may occur after convulsions (febrile or otherwise) as well as after trauma. The most important single physical finding is a limitation of external rotation of the shoulder (i.e. the shoulder is locked in internal rotation), and any painful or malfunctioning shoulder with this clinical finding should make one suspicious of a posterior dislocation. The diagnosis is best confirmed by an axillary view of the shoulder which will clearly show the humeral head posterior to the glenoid. This view should be taken more often. Treatment is greatly simplified when the diagnosis is initially made and consists of reduction and immobilization in slight external rotation and slight extension for several weeks. The operative treatment for the old posterior dislocation is discussed.

Thoroughman, J. C., M.D.; Pascal, G. R., Ph.D.; Jarvis, J. R., M.D.; and Crutcher, J. C., M.D., Veterans Administration Hospital, Atlanta, Ga., "A Study of Psychological Factors in Patients with Surgically Intractable Duodenal Ulcer and Those with Other Intractable Disorders," Psychosomatic Medicine 29:273-278(May-June)1967.

Medical thinking has gradually abandoned the concept of a specific ulcer personality and has substituted the hypothesis that it is the patient's reaction to chronic illness rather than the specific disease which influences the result. The authors attempted to secure evidence regarding the validity of this concept.

Previous studies of patients with intractable duodenal ulcer demonstrated that those having poor results following surgery could be differentiated from those having good results by psychologic measurements.[1] Furthermore, these tests had excellent predictive validity.

A group of patients having a chronic condition, such as low back pain, arthritis, hepatitis, etc., were matched for age, education and occupation with the ulcer patients and the two groups, totaling 40 patients, tested with the scale used for the initial group of ulcer patients. No difference was found between the two groups. This helps to confirm the clinical impression that the patient adapting poorly to his environment will probably handle chronic disease poorly regardless of the nature of the disease.

Wenger, Julius, M.D.; Backerman, Ivan, M.D.; Steinberg, Joel, M.D.; and Gendel, B. R., M.D., Emory Univ. School of Medicine, Atlanta, Ga., "Studies of Gastric Hydrochloric Acid Secretion in Pernicious Anemia: The Value of Near-Maximal Stimulation Techniques," The American Journal of the Medical Sciences 253:539-548(May) 1967.

Fifty-four patients with presumed pernicious anemia had a gastric analysis using modern stimulation techniques. Achlorhydria was defined by a test performed with near-maximal stimuli in which no specimen had a pH below 6.0 and none showed a fall of more than 1.0 pH unit during the test. A pH meter was used for all determinations. Three patients showed acid secretion, two were later found to have intrinsic factor present, therefore did *not* have pernicious anemia. The three patients were subsequently diagnosed as: sprue, nutritional megaloblastic anemia, and juvenile pernicious anemia.

The standard gastric analysis may be misleading because it is often unable to detect small quantities of acid secretion; the conventional Schilling test may also be misleading on occasion. Although many patients have achlorhydria according to this definition, and do not have pernicious anemia, the converse is not true; when hydrochloric acid secretion is present, most often the diagnosis of pernicious anemia will be incorrect. Gastric analysis with the newer techniques is a simple and very useful diagnostic procedure in the study of patients with megaloblastic anemia.

Lowenberg, Robert I., M.D., Atlanta, Ga., "Successful Delayed Small Artery Repair Following Fracture of the Femur," The American Surgeon 33:449-452(June)1967.

Arterial injury sometimes accompanies bone injury; when this happens, the outcome is grave. Arterial reconstruction is always necessary when a major vessel has been damaged. The size of the artery is of great importance, it being previously established that arteries below 3.0 millimeters in diameter rarely can be reconstructed successfully. When the time lag between injury and surgery is more than eight hours, even in larger vessels, the percentage of salvage falls off sharply. The case reported occurred in 1961 and involved a 7 year old boy whose femur was fractured with femoral artery occlusion. Arteriography performed indicated complete ischemia below the lower third of the thigh. Surgical exploration revealed the artery to be thrombosed with an intimal flap. The involved segment was excised and end-to-end arterial repair performed with interrupted everting mattress sutures.

Immediately postoperatively, arteriography was performed and indicated excellent flow past the suture line. Fasciotomy was done immediately following removal of the arterial clamps and skin grafting performed in three stages to replace necrotic skin. Following hospitalization for 100 days, the patient left under his own power. Six years later, he engages in almost every sport, yet he had been scheduled for thigh amputation.

Crowell, Gordon C., M.D.; Turner, Malcolm E., Jr., Ph.D.; Schmidt, Frederick H., Ph.D.; Howard, Carolyn M., B.A.; and Preedy, John R. K., M.D., Depts. of Medicine and Biometry, Emory Univ. School of Medicine, and the Medical Service, Grady Memorial Hospital, Atlanta, Ga., "Estrogen Metabolism in the Human. I. Studies in the Male Using Estrone-6,7-^{3}H, with Special Reference to Estrone Production Rate Determinations, the Origin of Certain Urinary

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[1] Thoroughman, J. C., Pascal, G. R., Jenkins, W. O., Crutcher, J. C., and Peoples, L. C.: Psychological factors predictive of surgical success with intractable duodenal ulcer: a study of male veterans; Psychosom. Med. 26:618, 1964.

Estrogen Conjugates, and the Use of a New Mathematical Model," Journal of Clinical Endocrinology and Metabolism 27:807-818 (June)1967.

Estrone-6,7-^{3}H was administered to a group of 12 normal males. The mean urinary excretion of conjugated estrone, estradiol-17β and estriol estimated following acid hydrolysis was (% of administered radioactivity, S.D. in parentheses): 9.93 (2.36), 1.05 (0.52) and 10.4(4.1) respectively. The mean daily excretion of the corresponding endogenous (non-radioactive) estrogen conjugates was (μg/day, S.D. in parentheses): 4.40 (0.88), 0.82 (0.35) and 3.85 (2.06). Corresponding unconjugated estrogens were present only in insignificant amounts. Mean estrone production rate, calculated from the specific activity of conjugated urinary estrone estimated after acid hydrolysis, was 46.3 μg/day, S.D. 12.7. The mean specific activity of conjugated estrone estimated with glucuronidase hydrolysis was not significantly different from that estimated with acid hydrolysis, suggesting that both moieties represent "exclusive" metabolites of estrone. The mean specific activities of conjugated estrone, estradiol-17β and estriol using acid hydrolysis were significantly different. A mathematical model in the form of a regression equation was developed and used to relate the radioactive and non-radioactive data in order to gain information regarding the origin of urinary estrone, estradiol-17β and estriol conjugates. Analysis of the model yielded results consistent with the hypothesis that conjugates of these three urinary estrogens are derived solely from estrone secreted into an inner pool which includes plasma, a conclusion different from that which might be arrived at from consideration of the specific activities alone.

Zarate, Arturo, M.D., and Greenblatt, Robert B., M.D., Medical College of Georgia, Augusta, Ga., "Quinestrol in the Menopause," International Journal of Fertility 12:233-234(April-June)1967.

The objective of this study was to evaluate quinestrol for the treatment of the menopausal syndrome.

Quinestrol appeared to be an effective estrogen in the management of the menopausal patient. Adverse effects were minimal. Cyclic therapy in doses of 25 mcg. for 20 days each month appears clinically effective, with minimal withdrawal or breakthrough bleeding.

Of 49 patients, 37 reported relief of menopausal symptoms following therapy with quinestrol at 25 to 100 mcg. per day. Nausea and gastrointestinal side effects were not encountered; 2 patients withdrew from the study because of nervousness, and 1 patient complained of nervousness.

Greenblatt, Robert B., M.D., and Zarate, Arturo, M.D., Medical College of Georgia, Augusta, Ga., "Effect of Quinestrol on Ovulation," International Journal of Fertility 12:243-246(April-June)1967.

The objective of this study was to determine the minimal effective doses of quinestrol in inhibiting ovulation. The study was conducted in normal ovulatory women, some of whom had dysmenorrhea, acne, or infertility.

Forty-three women were given quinestrol in doses ranging from 20 to 150 mcg. per day. Oral basal temperature records, pregnanediol determinations, vaginal smears, cervical mucus, and endometrial biopsy specimen examinations were used to monitor ovulation.

It was found that quinestrol in doses of 125 to 130 mcg. per day definitely inhibited ovulation in 15 of 19 trials (78 per cent).

Only 2 patients discontinued medication, because of nausea and breakthrough bleeding, respectively.

Greenblatt, Robert B., M.D., and Zarate, Arturo, M.D., Medical College of Georgia, Augusta, Ga., "Endometrial Studies Following Quinestrol Administration," International Journal of Fertility 12:187-202(April-June)1967.

The objective of this study was to learn whether quinestrol behaved similarly to other estrogens. We divided our study into six parts.

In our experience quinestrol behaved similarly to other estrogenic steriods. It proved to be a mildly proliferative agent as far as the endometrium was concerned, and some cases of atypism occurred. There may be an effect that reaches a summit and then regressive changes set in. Some of our observations lend support to this concept, because several patients had generous endometrial tissue on biopsy after two months on therapy, while not infrequently, the endometrial biopsy material was scanty after six months. When administered in combination with mestranol, no inhibitory effects were noted.

Good estrogenic responses of the uterine endometrium were observed following cyclical administration of quinestrol 10 to 100 mcg. per day for 20 days per month to menopausal women.

Endometrial hyperplasia was often observed following prolonged administration of a dose of 100 mcg. per day for 100 days or more.

Atypical glands were found in endometrial biopsies from 2 patients who had previously shown similar atypical responses to other estrogenic agents.

Humphries, Arthur L., Jr., M.D.; Heimburger, Richard A., M.D.; Moretz, William H., M.D.; and Stoddard, Leland D., M.D., Depts. of Surgery and Pathology, Medical College of Georgia, Augusta, Ga., "Homotransplantation of Canine Kidneys After 24-Hour Storage," Investigative Urology 4:531-538(June) 1967.

We have added continuous perfusion to hypothermia to lessen ischemic damage to kidneys.

Each dog served first as a donor and later as a recipient of an allogeneic kidney that had been perfused for 24 hours. Its remaining left kidney was removed 0-2 days later.

The kidney to be stored was cannulated via its artery, and perfused at 10° C. The perfusate of 100 ml. of blood, 100 ml. Tis-U-Sol, sodium bicarbonate, heparin, and penicillin was pumped through a membrane lung supplied with 3 per cent CO_2 in O_2. The pump gave a pulsatile flow; it was set for a mean pressure of 45 mm. Hg and so had to be slowed as resistance in the kidney increased.

Imuran (azathioprine) was given 5 mg. per kg. for about 5 days and lower doses thereafter. Prednisone 50-200 mg. was given at the first sign of rejection.

Three kidneys failed from technical errors, three excreted much urine, but could not avert a rising BUN, and three maintained life for 8, 18, and 32 days. One of the ten kidneys maintained a healthy dog with a BUN of 45 mg. per 100 ml. until shortly before its death 42 days later; unfortunately the kidney failed suddenly, perhaps from a mechanical defect; this kidney had good tubular regeneration and only scattered foci of lymphocytes. In no animals were there fibrinoid necrosis or thrombosis of arteries or arterioles as described by Porter and associates.

Darby, Capt. Roderick E., M.C., USA Hospital Specialized Treatment Center, Fort Gordon, Ga., "Stress Fractures of the Os Calcis," JAMA 200:1183-1184(June 26)1967.

In a series of 300 stress fractures, 129 (43 per cent) occurred in the os calcis. The incidence of calcaneal stress fractures was considerably higher than previously reported. This was probably due to the emphasis on different exercises currently employed in basic training programs.

Bilateral calcaneal stress fractures were observed in 35 of 94 patients (37 per cent). Seventy-one stress fractures were observed in the left os calcis and 58 stress fractures were noted in the right os calcis.

Stress fractures are probably more prevalent in the general population than is generally appreciated.

Making the diagnosis of a stress fracture is important as it must be differentiated from osteoid osteoma and osteosarcoma.

Dull, H. Bruce, M.D., Influenza-Respiratory Disease Unit, National Communicable Disease Center, Atlanta, Ga., "Current Programs of National Surveillance," Archives of Environmental Health 14:739-746(May) 1967.

Influenza surveillance presently under way at the National Communicable Disease Center utilizes a variety of information. The most important kinds of data for assessing the extent and severity of epidemic influenza are:

1) Associated influenza mortality.

2) Epidemiological indices of school or industrial absenteeism, interruption of community services, and appraisal of clinical disease.

3) Laboratory characterization of the influenza viruses.

Review of current information from these three general areas with knowledge of the patterns of influenza observed for many years is the basis for influenza forecasting and assists development of effective vaccines.

COUNTY SOCIETY ERECTS WARNING ON HIGHWAY "KILLER STRIP"

The members of the Spalding County Medical Society became concerned over the number of fatalities, injuries and accidents occurring on U.S. 41 South and U.S. 341 By-Pass, so a committee was appointed to study the feasibility of placing a sign on the highway warning motorists of the danger and the need for caution. The committee met with Mr. Frank Harris of Harris Poster Advertising Co. of Griffin and he offered to donate the billboard space. A poster was designed and the Spalding County Medical Society approved the purchase of the poster. The billboard displaying this poster is located just before U.S. 41 changes from a four-lane to a two-lane highway.

Over a period of twelve months, there were 21 deaths, 196 injuries and approximately 300 reported accidents on this stretch of highway. Over 75 per cent of the people involved were tourists going South and it was felt that the change from four-lane traffic to two-lane traffic, failure of adjustment to driving conditions by drivers, and inadequate or poorly placed warning signs by the highway department were the factors which contributed to the high accident rate on this stretch of road. While the poster would not prevent accidents from occurring, it was felt that such a warning might be heeded and would result in a decrease of accidents.

The poster background is black with the words, "DANGER" and "Drive With Care" in red glow lettering. The remainder of the figures and letters are white. The billboard is lighted so that it is visible at night as well as during the day.

HIGHLIGHTS OF THE ACTIONS OF THE MAG EXECUTIVE COMMITTEE OF COUNCIL MEETING, JULY 23, 1967

This summary is being published so that the MAG membership may be advised in brief of the actions of the Association's Council and Executive Committee. It covers only major actions and is not intended as a detailed report. Full minutes of these meetings are available upon any member's request to the MAG Headquarters Office.

MAG Military Medicare Contract Termination action by the Department of Defense based on a new Department ruling that says medical associations are no longer eligible as Fiscal Agents was discussed. MAG opposition to this ruling will be stated in a meeting by the MAG President and MAG Attorney at the Defense Department scheduled for July 25, 1967, Washington, D.C. MAG will continue to act as Fiscal Agent pending the outcome of this meeting under an extension of the present contract which expired July 1, 1967.

Georgia Regional Medical Program (Heart Disease, Cancer & Stroke) progress report on "task force" activity was received with laudation. Executive Committee approved the employment of a communications specialist as an additional GRMP staff member.

Fulton County Medical Society resolution in support of the concept of the patient's free choice of physician and facility, with a fee for service basis and usual and customary fee was reaffirmed by MAG Executive Committee as Association policy at the request of F.C.M.S.

Title 19 Advisory Committee to the State Department of Family and Children Services now includes the following physicians as nominated by MAG and appointed by the Department: Dr. Joseph Wilson, Atlanta; Dr. Kirk Train, Savannah; Dr. T. A. Sappington, Thomaston; and Dr. Rhodes Haverty, Atlanta. Other persons serve on this Committee in addition to the MAG appointees.

MAG Headquarters Office Staff Operating Policies were given a thorough review and revised to conform to current employment practices. The original policies were adopted in 1963 when the Association Headquarters Office consisted of some 11 employees. The present MAG Staff now includes 22 employees with the advent of the Georgia Regional Medical Program, Old Age Assistance Program and Military Medicare.

Other Items received by Executive Committee included data on MAG opposition to inclusion of Chiropractic under Social Security Medicare, information on the progress of Title 19 implementation in Georgia, MAG opposition to compulsory generic prescribing, and discussion of initiating an MAG "long range" planning and development committee.

MEDICAL COLLEGE OF GEORGIA OFFERS ANNUAL GENERAL PRACTICE REVIEW

The annual General Practice Review at the Medical College of Georgia is being presented in Augusta for practicing physicians on November 6 through 10, 1967. In this five-day program emphasis will be placed on the recognition and proper management of conditions frequently encountered by physicians in family practice. Separate sections of the course will cover the following topics:

Pediatrics (coordinated by Dr. Gerald H. Holman, Professor and Chairman of Pediatrics)
Internal Medicine (coordinated by Dr. A. Jay Bollet, Professor and Chairman of Medicine)
Gastrointestinal Disorders (coordinated by Dr. Victor A. Moore, Associate Professor of Medicine and Chief of Gastroenterology)
Obstetrics and Gynecology (coordinated by Dr. Preston L. Wilds, Professor of Obstetrics and Gynecology)

Dermatology (coordinated by Dr. J. Graham Smith, Jr., Professor and Chairman of Dermatology)
Ophthalmology (coordinated by Dr. Robert P. Thomas, Professor of Surgery and Chief of Ophthalmology)

The instruction will utilize multiple formats—lectures, panel discussions, special audiovisual techniques, and question and answer periods. The afternoon of the third day is unscheduled time so that the enrollees may attend regular clinical teaching conferences or rounds in our hospitals or, if they prefer, take advantage of local tourist and recreational opportunities. Formal instruction is scheduled for one evening in addition to the morning and afternoon sessions. On the evening of the first day a course banquet will be held.

The registration fee is $80.00 for the full course or $20.00 per day.

For further information contact: Division of Continuing Education, Medical College of Georgia, Augusta, Georgia 30902.

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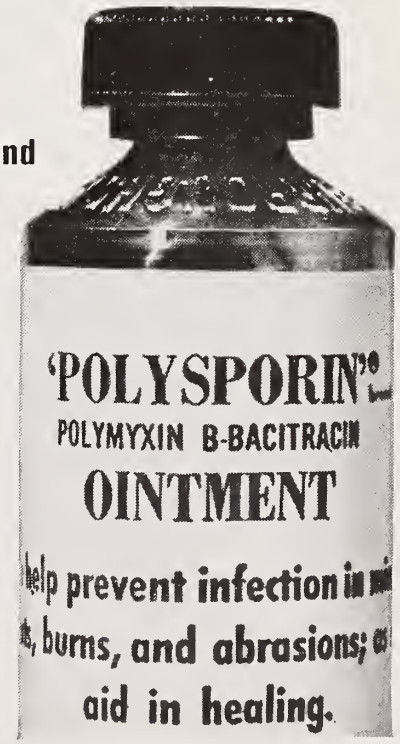

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Brunswick	*Dublin*	*Grovetown*	*Rome*	*Warner-Robins*
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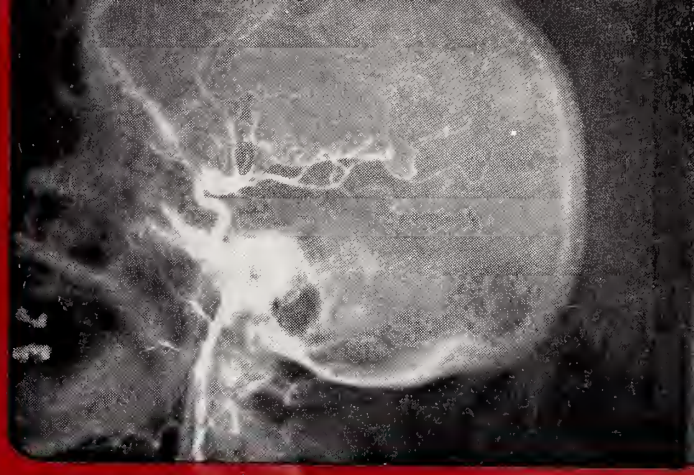

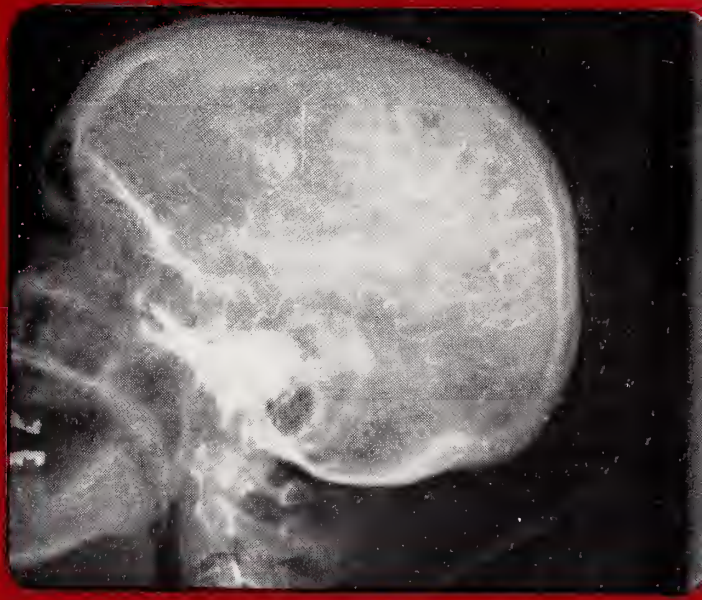

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Progress in Radiology

See page 430

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Cover

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Adverse Reactions: The most common are nausea, edema and dr rash. Swelling of the ankles or face may be minimized by withholdi dietary salt, reduction in dosage or use of diuretics. In elderly patien and in those with hypertension the drug should be discontinued wi the appearance of edema. The drug has been associated with peptic

JOURNAL OF THE MEDICAL ASSOCIATION Georgia

POSTOPERATIVE AND PUERPERAL CARE OF THE URINARY BLADDER

William F. Mengert, M.D., *Chicago, Illinois*

■ **Twice the amount of gross urinary tract infection is seen in catheterized women as in those voiding spontaneously.**

I HAVE SEEN A WOMAN DIE of cystitis after sloughing the entire mucosa of the bladder piecemeal through the urethra. I have seen a woman with severe hemorrhagic cystitis slowly return to health during a long, painful year. I have seen many women with severe cystitis pass blood-tinged urine for prolonged periods of time. All of these were postoperative phenomena and, fortunately, years ago. These patients and others forced my thoughts to dwell upon the necessity and type of care of the urinary bladder after operation and raised many questions regarding usefulness of routines handed down from gynecologist to gynecologist.

Care of the Bladder

Since the beginnings of modern gynecologic surgery, ritual care of the urinary bladder after plastic vaginal operation has consumed much time and energy. During my first year of residency, just before the Great Depression, current, local bladder care went like this: irrespective of need, the postoperative patient was catheterized every eight hours for at least a week and often longer. When she did get up she was catheterized at least once daily immediately after voiding and the amount of residual bladder urine measured. She was not allowed to leave the hospital until there was less than 30 cc. of residual urine on two successive days. My residency completed, events took me elsewhere for two years.

Upon my return in 1934 to the senior staff at Iowa, I found the technics of postoperative bladder care stringently tightened. Apparently previous results were not satisfying. An indwelling catheter was routinely placed in the bladder of each patient undergoing vaginal surgery before she left the operating room. Interns or senior medical students were detailed to irrigate the bladder with sterile saline solution every six hours until the catheter was removed many days later. It was during this period that the tragic events detailed in the opening sentences were observed.

Perineal Care Was Exception

Fortunately at Iowa, there was one shining exception to the elaborate postoperative routines commonly in vogue at the time. This was perineal care. Years before, my Chief, Plass, in a controlled alternating study of several hundred puerperal women, showed they healed as well, if not better, when left alone. This revolutionary idea logically lent itself to transfer to gynecology for the postoperative care,

---

From the Department of Obstetrics and Gynecology, University of Illinois at the Medical Center, Chicago.
Presented at the 113th Annual Session of the Medical Association of Georgia, May 1, 1967, Atlanta, Georgia.

or rather lack of it, of all vaginal procedures. However, it was the *only* bit of simplification transferred to gynecology from its origin in obstetrics. Otherwise, all the rest of our postoperative care was more or less as complicated as that in general use. Perhaps the lack of simplification of any other gynecologic procedure coupled with the simplicity of postoperative perineal care helped to focus thought on the necessity of elaborate care of the urinary bladder.

Practices of the 1930's

Let us digress at this point briefly to summarize some of the obstetric and gynecologic practices of the early 1930's. The obstetric patient was kept supine in bed because if she arose before regaining tone of uterine supports she was thought to be in grave danger of future genital prolapse. The gynecologic patient stayed in bed because otherwise the wound might break open. Many dressings and much adhesive tape were supposed to keep wounds clean and hold them together. They also impressed, frightened and inhibited the patient physically and psychologically. The many-tailed scultetus bound up the abdomen and was a great comfort to the surgeon's peace of mind. Efforts to antisepticize the vulva and keep it sterile were almost universal, in total disregard of the utter impossibility of success. In order to void, the bed-ridden patient must first summon a nurse who mobilized a bed pan, sterile cotton pledgets, vulval pads, antiseptic solution and a sterile pitcher. Then the vulva was carefully exposed, the horizontal patient put on a pan and expected to void. Sometimes the nurse left her in private. Following voiding the vulva was washed from above down (never the reverse, God forbid!) with cotton pledgets soaked in bichloride, pitcher douched, and remummified.

Spontaneity Restrained

Consider the physical and psychologic restraints to spontaneity. It was impossible to void in private; the nurse must be summoned. The dressings and attendant rituals made voiding a major production. No man or woman commonly voids from a horizontal position; in fact, it has been drilled into each of us from earliest infancy *not to wet* the bed. Also, consider a young, sensitive woman who has just given birth to her first baby trying to void under these circumstances. Looking back on these days, I am astonished that any patient was able to void under the handicaps dreamed up by the fertile imaginations of doctors and nurses. The catheter was an essential instrument on an active obstetric service. "Paradoxical incontinence" was common. When the puerperal woman voided a few cc. of urine every 30 to 60 minutes it was a safe bet her overdistended bladder contained 1000 to 1500 cc. of urine.

The dramatic change in puerperal women from that picture to today probably is not appreciated by one who reads or hears, but did not experience, the complicated rituals. Today, the catheter is virtually a forgotton instrument on our obstetric floor. Our normal obstetric patients really never go to bed. For our convenience they lie down to have the baby, but otherwise are entirely ambulatory. "Paradoxical incontinence" is something the old timers talk about. The ability to go to the bathroom and void under familiar circumstances represents a tremendous gain.

Principles Not Applied

Application of principles of simplified care to the gynecologic wards lagged behind obstetrics. Perhaps this is because things are *done* to the gynecologic patient. From the lessons learned from the grim period, when we infected patients with frequent washings of an indwelling catheter, mentioned earlier in this talk, the first step was to stop washing but continue use of the catheter. We took this step about 20 years ago. Fluid intake was pushed on the principle of washing the bladder out from above downward. It was learned that an indwelling catheter could be maintained indefinitely provided there was no prior infection and the patient received a minimal daily fluid intake of 5 liters. Sometimes the catheter became plugged after insertion. We changed the catheter, but never irrigated it. Each bladder washing was equivalent to an independent catheterization. In other words, each irrigation introduced microorganisms no matter how carefully performed. I believe the repeated washing and reintroduction of new organisms were responsible for the horrible infections described in the opening of this paper. Ultimately, we began to remove the catheter earlier than before, often after a few days, but ran into difficulties unless it remained at least five days. Obviously, a catheter irritates and infects urethra and bladder. The net effect is local edema. Infection is not a problem, provided there is copious fluid intake and thus, urinary outflow. On the contrary, infection becomes a real problem despite antibiosis and sulfa drugs when the fluid intake falters. Swelling produced by catheter reaction subsides after four or five days. If, however, the catheter is removed before this time, the patient's ability to void spontaneously is greatly decreased. Thus, today, if we insert an indwelling bladder catheter we usually do not remove it before the fifth day.

Every physician knows that postoperative bladder difficulties are most often, in fact almost exclusively,

seen in the female. Why do women seem to have so much more trouble than men? In order to ascertain whether or not this is true, we investigated the operation of appendectomy which should be identical in both sexes. Through courtesy of the Department of Surgery we checked records retroactively of consecutive appendectomies performed on 90 men and 80 women. In each of the 170 patients no other procedure was done and the sole indication for operation was appendicitis. No man was unable to void, or was catheterized postoperatively. Six women were unable to void and were catheterized postoperatively. In addition, indwelling catheters were inserted preoperatively for various reasons in one man and five women.

What causes the divergence in spontaneity of voiding between the sexes? Perhaps the differential anatomy of male and female may be an important part of the answer. The average length of the female urethra is 3.5 cm; that of the male varies greatly, but averages 20 cm. In other words, the average length of the male urethra is nearly six times that of the female. Moreover, the narrowest portion of the male urethra is at the most sensitive part, namely its outlet at the glans. Translated into every day language, a man abhors the thought of possible catheterization and will avoid it even at considerable cost in terms of pain. In contrast, catheterization of a woman is technically simple and virtually painless. Whether or not it might be harmful is of no consideration at the moment. Moreover, the procedure is usually delegated to a nurse. Is it possible that some women would rather be catheterized than suffer the pain of straining against a fresh wound?

Early Ambulation

Early ambulation virtually eliminated catheterization from our obstetric floor. On the other hand, it has not done so on the gynecologic floor. Unfortunately, the term "early ambulation" means different things to individual physicians. For some it means the first day, for others the second or third. To me, it means minimally placing the patient in a vertical position with the lower legs hanging down over the side of the bed on the day of operation. The next day and thereafter, she goes to the bathroom accompanied by an attendant, or alone. Even if one does not subscribe to this concept of early ambulation, perhaps she might be allowed to sit erect on a bed pan on a chair beside the bed. However, this does not place the patient in familiar conditions, and smacks of hospital mystique, which can prove disturbing to some patients. Obviously, there is more to the problem of encouragement of spontaneity than early ambulation.

Is it possible the anatomic juxtaposition of genital and urinary tracts is responsible, at least in part, for woman's postoperative voiding difficulties? Certainly, many gynecologists would think so. Hysterectomy, abdominal or vaginal, necessitates removal of the bladder from the uterus early in the operative procedure. Anterior colporrhaphy likewise involves dissection around the vesico-urethral junction. On the other hand, the bladder muscularis is not ordinarily injured by such dissection. Why then should the gynecologist be fearful the bladder will refuse to contract properly following operation?

Analogy With Digestive Tract

Perhaps there may be a strong analogy with the digestive tract. Fearful of trouble, most gynecologists withhold solid or even soft diet postoperatively. Some even place naso-gastric suction routinely in the operating room. These men ignore the fact that, except by accident or the performance of the occasional appendectomy, the digestive tract remains intact during usual abdominal gynecologic procedures. Years ago, as a by-product of some research involving rabbits, I learned that the surest way to increase intestinal gas enormously and produce ileus was to slow the intestinal current by starvation. Today, we never insert a naso-gastric suction tube unless there is serious surgical attack on the intestine. Moreover, the patient is offered solid diet on the first postoperative day. Many of them take it. We have done these things for years and nothing but good has resulted. Might it be that we should apply some of this reasoning to postoperative care of the urinary tract and encourage speedy return to normality? This leads directly to discussion of what is probably an important contributing factor to postoperative bladder difficulty in women.

The physician and the nurse, as well as the patient, are conditioned to the belief that urinary function will most probably be impaired by operative attack. Were this not so, there would be little point to this address. We are so afraid the patient will have trouble voiding postoperatively that most of the time we avoid the issue and deny her the chance to try. Some form of the elaborate, ritualistic routines of several decades ago have been handed down from generation to generation of gynecologists and persist in many hospitals today. Adherence to established teaching and custom is overwhelming, especially among physicians who by nature, fortified by training, are conservative.

Broke With Tradition

After three decades of experience and thought about postoperative care of the urinary bladder, we finally dared to break with tradition. In 1961 we decided to omit routine placement of an indwelling catheter at the time of operation. Currently, no catheter is placed at the time of operation unless

the vagina is packed to control bleeding or to hold radium in place, or the bladder wall is repaired for present or previous injury. Sometimes individual catheterization is performed in the recovery room. We are trying now to educate our young doctors and nurses to sit the patient in the recovery room on a bed pan on a chair beside the bed in lieu of this. After the patient returns to the ward she becomes ambulatory and hopefully encounters an attitude of expectancy with regard to voiding. However, after six years of experience, the "attitude of expectancy" on the part of resident and nursing personnel is not as well developed as it could be. Many of them were trained elsewhere and require a considerable period of time to adjust to the new and startling routines after joining our service. Many of them give us lip service, but not sincere cooperation. The sole reason for placing a catheter postoperatively is the patient's inability to void. After placement, it remains for five days. Timing of removal, as mentioned before, was evolved empirically through trial and error. A shorter time invites failure of spontaneous voiding after removal. Conversely, results are not improved if the catheter is allowed to remain longer than five days. If the patient is unable to void after removal, the catheter is reinserted to remain for a second five days. Occasionally, it is allowed to remain until the patient pleads for removal. Fluids are forced while the catheter remains in place. If a third insertion of an indwelling catheter is necessary, the patient is referred to urology, psychiatry or other appropriate hospital service.

Desire Is All Important

From the above, it is obvious we tend to believe that opportunity, patient conditioning, attitudes of attending personnel, and patient's desire for success are essential ingredients of spontaneous postoperative voiding. This last, patient's desire, is *all important*. Without her cooperation, the program is a dismal failure. A notable example of patient lack of cooperation comes instantly to mind. She was indigent, not very bright, and a particularly sour, unlovely uncooperative woman on whom we did a Schauta operation. We were never able to maintain her without bladder drainage with an indwelling catheter. Reluctantly, we allowed her to go home wearing it. Much later we learned she lived with relatives who wanted no part of her care, or of the woman herself. With the catheter she was able to wring grudging acceptance and attention from the relatives because they recognized her handicap. This gave her a leverage over the family she had not previously enjoyed. Much later, after frequent and repeated periods of hospitalization on our service and on urology, she developed local, later spreading infection and died. This happened before we began to analyze the results, to be reported later during this talk. In retrospect, it would have been intelligent to perform suprapubic cystostomy. At the time, we were reluctant to urge such a drastic step on our colleagues in urology. In fact, it was this patient who made us realize that failure to void spontaneously after two insertions of an indwelling catheter should be a signal for a thorough urologic, sociologic and psychiatric investigation.

Years ago, we ceased paying attention to residual urine. If the patient voids spontaneously after two catheter insertions, or even three, the bladder regains its tone rapidly and complete emptying is assured. At routine examination six weeks later, there has been no problem of residual urine. Currently, during the postoperative hospital stay, efforts are directed toward maintenance of adequate fluid intake and avoidance of overdistention with its resulting "paradoxical incontinence." No attention whatsoever is paid to the amount of "residual urine."

Results Analyzed

The results of our current treatment, outlined above, were analyzed in 430 women operated upon during the five-year period 1961 through 1965. The 430 patients received any one, or combinations of three, operations: vaginal hysterectomy performed on 359 women, anterior colporrhaphy on 334 and perineorrhaphy or posterior colporrhaphy, 134 women. The hospital records were coded and transferred to punch cards. Vaginal packing, presumably for hemostasis, was placed in 103 women at the time of operation. These women also received an indwelling catheter. For various reasons, 12 other women, a total of 115, received an indwelling catheter at the time of operation. These 115 women, therefore, were denied the possibility of voiding spontaneously. Of the remaining 315 women, 153 or *48.5 per cent voided spontaneously*. Fifteen of them were catheterized once on the day of operation.

In addition to the 115 women noted above, 162 others did not void and indwelling catheters were placed postoperatively. Of this total of 277 women *not* voiding spontaneously, 204 or 73.5 per cent voided upon removal of the catheter. Seventy-three did not and the catheter was reinserted. Forty-seven, or 64.3 per cent of these 73 voided spontaneously after the second removal; 26 did not. Of the 26 requiring a third catheter insertion, five were referred to Psychiatry and six to other hospital services. Seventy-eight of the 277 not voiding group were additionally catheterized individually; 47 once, 15 twice and 16 from three to nine times each.

In order to assay the benefits of spontaneous voiding as opposed to placement of the indwelling catheter, the 430 cards were analyzed in two groups, *Voiding* and *NOT voiding* regarding morbidity, duration of hospital stay and final outcome. Group I, voiding spontaneously, as mentioned above comprised 153 women and Group II *not* voiding spontaneously, 277 women. Morbidity is shown in Table I.

TABLE I

POSTOPERATIVE MORBIDITY

	Voiding			
	Yes (153 pts) Group I		No (277 pts) Group II	
	Number	Per Cent	Per Cent	Number
Wound infection	43	28.6	30.4	81
Pelvic cellulitis	3	2.0	0.7	2
Pelvic abscess	4	2.6	2.6	7
Urinary tract infection	34	22.2	43.7	120

The only significant feature relates to urinary tract infection. As might be expected, it was almost twice as frequent in Group II, those not voiding spontaneously, 43.7 per cent as contrasted with Group I, 22.2 per cent. Whether or not the patient was catheterized apparently did not influence the incidence of superficial vaginal wound infections, pelvic cellulitis or abscess.

Morbidity is occasionally associated with mortality. One woman of Group II died. She was a 30-year-old, gravida 12, who underwent vaginal hysterectomy and anterior repair. She did not void spontaneously, and an indwelling catheter was inserted postoperatively. She did not void after removal of the catheter and another was inserted. Soon after operation she exhibited fever and tachycardia and did not respond to antibiotics. Death occurred on the fourteenth postoperative day. At autopsy, there was thrombosis of the perivesical venous plexus, localized pelvic peritonitis, thrombosis of the ovarian veins and a massive pulmonary embolus. Obviously, the pulmonary embolus caused her death, with infection a contributing factor.

Hospital Stay Prolonged

Inability to void spontaneously definitely prolonged the hospital stay, sometimes to a marked degree. Figure I depicts graphically the percentage of each group *remaining* in the hospital on a given day. Since almost half of the patients were discharged within a week after operation, the graphs start on the seventh day. At this time 62 per cent of Group II remained in the hospital, but only 44 per cent of Group I. In general, women of Group II (not voiding spontaneously) remained at least two days longer in the hospital than women in Group I. All

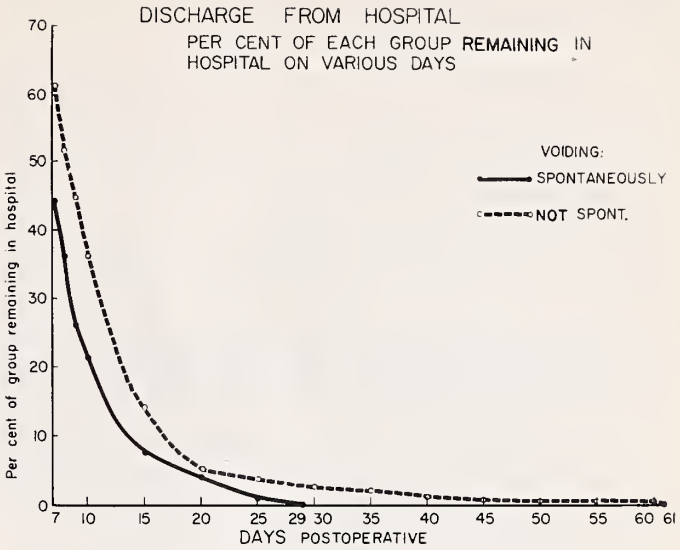

FIGURE I*

Group I women (voiding spontaneously) were discharged within 29 days. Eight women, almost 3 per cent, of Group II remained in the hospital beyond this time, one even remaining a total of 61 days.

Four hundred and ten, 95.4 per cent, of the 430 women returned to the outclinic for check between one and nine weeks after discharge from the hospital. See Table II.*

TABLE II

POSTOPERATIVE FOLLOW-UP (1-9 WEEKS)
(410 PATIENTS 95.4%)

	Voiding			
	Yes (145 pts) Group I		No (265 pts) Group II	
Result	Number	Per Cent	Per Cent	Number
Well	138	94.8	89.6	229
Stress incontinence	3	2.7	6.3	18
Miscellaneous urinary symptoms	4	3.4	4.9	13
Dead	0	—	0.4	1

There were follow-up visits from 145 women of Group I and 265 of Group II. Percentage differences between the two groups are not marked, but superiority of final outcome clearly rests throughout with those who voided spontaneously, Group I.

A comment may be in order regarding routine catheterization of the laboring woman immediately prior to childbirth. Joseph B. DeLee, ever fond of the cliché, insisted that a catheter should be tied to every pair of forceps. From what we know of anatomy and the course of labor, is it always necessary to catheterize prior to forceps operation or even to birth? The urinary bladder is attached to the upper vagina, cervix and isthmus of the uterus. With complete dilation and retraction of the cervix

** Figure I and Table II reprinted from Shipkowitz and Mengert: "Urinary Bladder Care After Vaginal Operation," American Journal of Obstetrics and Gynecology 97:828-831, 1967, with permission of the C. V. Mosby Co., Publishers.*

these parts are retracted upward. At the beginning of the expulsive stage of labor, the bladder ceases to be in the true pelvis and becomes an abdominal organ, removed from possibility of injury. On the other hand, every gynecologist knows that cystocele does occur in later years in direct proportion to the number of previous vaginal births. Voluntary expulsive efforts on the part of the patient, "bearing down," may force the head low in the pelvis and trap urine in a partially filled bladder. Repetition of voluntary expulsive effort in such a patient most certainly will stretch supports of the anterior vaginal wall. The fault, however, is improper conduct of labor, not failure to catheterize.

In summary, I *do* believe women have more difficulty voiding postoperatively than men. Many factors play a part in etiology. Of all of them discussed here, the most important are the attitudes of nurse, doctor and above all the patient. She, however, could easily be conditioned and encouraged if nurse and physician did not feel in advance of the event that spontaneous voiding probably would not occur. A contributing factor is the relative ease of catheterizing a woman as compared to a man. No male in his right senses will permit catheterization if there is a reasonable alternative. I do not believe that the anatomic juxtaposition of urinary and genital tracts in the female plays a significant role in etiology or frequency of catheterization of women.

Postoperative vs. Puerperal

How can we explain the difference between necessity for catheterization postoperatively and puerperally? Puerperal catheterization is seldom, perhaps once every week or two, performed on our obstetric service of 200 births monthly. Perhaps explanation can be found if we consider the two types of patients. The obstetric patient does not feel injured by her experience. Moreover, she has a thrilling new baby to occupy her attention. On the other hand, we traumatize the gynecologic patient. She has some justification to feel sorry for herself and to wish to avoid additional infliction of pain which she can, by avoidance of expulsive straining.

Our studies indicate twice the amount of gross urinary tract infection in catheterized women as in those voiding spontaneously. It seems to me this is a significant figure and that we must begin to emphasize the deleterious effects of catheterization to gynecologists, nurses serving on the gynecologic wards and most especially to young doctors in training. I feel certain that most women can be induced to void spontaneously after operation if we try. The improved results we know will follow certainly would seem to justify the effort required.

PACKETS OF PROJECTS

During the summer months, MAG's Field Service Department has been engaged in the preparation of a series of kits intended for the use of county medical societies in their public relations programs.

Realizing that every society in the state is not desirous of receiving reams of printed materials through the mails, the Field Service Representative will call on the officers of county medical societies with 20 or more members to discuss one or more of the packets with them. If there is a desire for one or all of the kits, they will be left with the officers to be used at their discretion.

Topics covered by the kits include Allied Health Recruitment, Legislation, Venereal Disease Education, Immunization, Traffic Safety, and General Information.

Smaller societies may receive the kits by writing to MAG Headquarters.

PROGRAM FOR THE PRACTITIONER AT AMA CLINICAL CONVENTION TO BE HELD NOVEMBER 26-29, 1967, AT HOUSTON'S ASTRO HALL

A scientific program especially designed for the physician in practice again will be featured at the AMA's Clinical Convention, to be held in Houston November 26-29.

The four-day meeting will include scientific sessions on 18 major topics, four postgraduate courses, breakfast roundtable conferences, closed-circuit television and medical motion picture programs, and more than 150 scientific exhibits.

Of special interest are the postgraduate courses, expanded to four topics: Fluid and Electrolyte Balance, Oncology, Cardiovascular Disease, and Obstetrics and Gynecology. Each course will consist of three half-day sessions featuring outstanding teachers.

Scientific and industrial exhibits and all scientific meetings will be in Houston's new Astro Hall, a part of the Astrodome complex.

The Ninth National Conference on the Medical Aspects of Sports will be Sunday, Nov. 26, at the Hotel America in conjunction with the Clinical Convention. Sponsored by the AMA Committee on the Medical Aspects of Sports, the meeting will feature morning, afternoon, and evening discussions of problems faced by team physicians at all levels of athletic competition.

Times change and classic lobar pneumonia is rare. Your next pneumonia patient may have an atypical clinical picture and perhaps a pathogen in his sputum such as *H. influenzae* or *Mycoplasma pneumoniae* (Eaton Agent), which is believed to be responsible for one out of every five cases of pneumonia. That's why it makes sense to keep one step ahead—and prescribe the *true* broad-spectrum antimicrobial activity of DECLOMYCIN.

With DECLOMYCIN, you get effective action against *both H. influenzae* and *Mycoplasma pneumoniae*, plus prolonged high levels of antibiotic activity in the blood and the lung tissue. You're one step ahead with...

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Prescribing information on next page.

For a wide range of everyday infections—respiratory, urinary tract and others—in the young and aged—the acutely or chronically ill.

For common and unusual pneumonias

DECLOMYCIN Demethylchlortetracycline should be equally or more effective therapeutically than other tetracyclines when the offending organisms are tetracycline-sensitive.

Contraindication: History of hypersensitivity to demethylchlortetracycline.

Warning—In renal impairment, usual doses may lead to excessive accumulation and liver toxicity. Under such conditions, lower than usual doses are indicated, and, if therapy is prolonged, serum level determinations may be advisable. A photodynamic reaction to natural or artificial sunlight has been observed. Small amounts of drug and short exposure may produce an exaggerated sunburn reaction which may range from erythema to severe skin manifestations. In a smaller proportion, photoallergic reactions have been reported. Patients should avoid direct exposure to sunlight and discontinue drug at the first evidence of skin discomfort. Necessary subsequent courses of treatment with tetracyclines should be carefully observed.

Precautions—Overgrowth of nonsusceptible organisms may occur. Constant observation is essential. If new infections appear, appropriate measures should be taken. In infants, increased intracranial pressure with bulging fontanels has been observed. All signs and symptoms have disappeared rapidly upon cessation of treatment.

Side Effects—Gastrointestinal system—anorexia, nausea, vomiting, diarrhea, stomatitis, glossitis, enterocolitis, pruritus ani. Skin—maculopapular and erythematous rashes. A rare case of exfoliative dermatitis has been reported. Photosensitivity; onycholysis and discoloration of the nails (rare). Kidney—rise in BUN, apparently dose related. Hypersensitivity reactions—urticaria, angioneurotic edema, anaphylaxis. Teeth — dental staining (yellow-brown) in children of mothers given this drug during the latter half of pregnancy, and in children given the drug during the neonatal period, infancy and early childhood. Enamel hypoplasia has been seen in a few children. If adverse reaction or idiosyncrasy occurs discontinue medication and institute appropriate therapy.

Average Adult Daily Dosage: 150 mg q.i.d. or 300 mg b.i.d. Should be given 1 hour before or 2 hours after meals, since absorption is impaired by the concomitant administration of high calcium content drugs, foods and some dairy products. Treatment of streptococcal infections should continue for 10 days, even though symptoms have subsided.

Capsules: 150 mg; **Tablets:** film coated, 300 mg, 150 mg, and 75 mg of demethylchlortetracycline HCl.

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■ Similar programs tailored to the individual needs of other communities would seem feasible.

THE NORTHSIDE YMCA SEX EDUCATION PROGRAM

Joseph L. Girardeau, M.D., *Atlanta*

THE NORTHSIDE YMCA has conducted a Sex Education program for the past thirteen years. The first two years involved only a father-son program; eleven years ago a mother-daughter program was added. The Northside YMCA is a branch of the Metropolitan Y which services the Northside area of Atlanta. It is in an area which one would call the "fingerbowl district," and yet its services reach people of all socio-economic groups, the lower socio-economic groups being a minority. It services the high schools stretching for a distance of more than thirty miles north and south, and in this area there are 5,500 eighth and ninth-grade students. The city child is peculiar in his need for sex education. He has had no farm animals to provide an entree for his father or mother to begin this enlightenment. Indeed, the majority of these youths get their pets from a vet or other agency without the benefit of observing birth. Only through TV and movies is there any suggestion of sex broached in most homes; and as you are aware, this is frequently done in the most unusual and distorted ways.

Realized the Void

Realizing the void that can possibly exist in this area, and realizing the role of the YMCA as a family service in Northside Atlanta, the YMCA through its Advisory Board decided to begin a series of Sex Education courses. There was not at that time, and there is still not available today, any similar instruction in the public schools in this area. Some church groups have similar courses, but are generally somewhat limited to their own parishioners.

A Steering Committee was formed composed of physicians from the Fulton County Medical Society, clergy from the area of the schools involved, and the YMCA staff of the Northside branch. The first meeting was characterized and each has since been characterized, by a searching for the form in which this material should be presented, both as to the nature of the presentations and material available to best accomplish the aims of the courses—to give the child a knowledge of sex based on facts, and also to make it possible for a child-parent relationship to be such that a free flow of thoughts should be accomplished. I would like to read to you the goals of these series from our initial presentation to these groups:

> Both Clinics this year have been designed with two primary goals in mind. One of these is to improve the interpersonal relationship between youth and parent, and in so doing, allow them to discuss sex and social behavior easily and more naturally. This may result as a by-product of the factual information given in these formal presentations and through the discussions carried on in the smaller group settings. It is hoped that both parent and child will go away from the meeting with a more common knowledge in the area of Sex Education, and because of this will communicate with one another more freely.
>
> The second goal concerns itself with the area of Value Training. A basic principle of the YMCA program involves the concept of working with the whole person, which includes body, mind, and spirit. Because of the dedication to this aim, therefore, an effort should be made throughout the entire series to relate certain intrinsic ethical values to as much of the presented factual information that can be

Presented at the Georgia State Obstetrical and Gynecological Society Interim Meeting, May 1, 1967, Atlanta, Georgia.

related. By doing this an individual could conceivably develop a set of personal standards which might aid in the determination of how he or she uses any retained information in later sex and social relationships.

Chose Fourteen-Year-Old Group

We have struggled as to the "right" age to present this course; for as you are all aware, there is a disagreement as to how soon or how late this should be done. We have settled for the eighth and ninth-grade level, which primarily takes in the fourteen-year-old group, a few above and a few below, some with a greater degree of sophistication in this subject, some with complete ignorance of what we are about.

In the high schools involved we promote by mail alone. This folder which we have is mailed to all the parents of all eighth and ninth graders, which number this year 5,500. We hope that the mailing encourages the parent and youth to respond as much as any other approach might, and we feel that the folder is in good taste. We have insisted that the parents accompany the child, and have stuck to this in almost every instance. When no father for the boy or no mother for the girl has been available, another adult, a guardian, relative, or close friend has been allowed to accompany them. Our response has been gratifying, but not overwhelming. Of the 5,500 folders mailed out this year, 300 youths are enrolled in our course, a total of 173 boys and 125 girls. As you can easily figure, this represents only five-and-one-half per cent of those contacted.

I would like to interject here that I am worried about those that were not reached or do not respond. Can we assume that their education in this field is adequate? Have their parents been able to give them that which is needed, or does this group represent an ill- or mis-informed group who are receiving no education in this area?

Four Meetings in Series

Our series are set up on four consecutive Monday nights for the boys and four consecutive Tuesday nights for the girls. The program begins promptly at 7:30 and ends promptly at 9:00 p.m., for this is a school night. The first forty-five minutes of each program are presented in an assembly hall with the youth and parent together, and are characterized by a presentation of the topic for that night. It is conducted by a pre-arranged speaker who utilizes films, slides, and other audio-visual aids that he or she may find will help, along with suggestions from the Steering Committee of the Y. After approximately forty-five minutes, the group then breaks up into discussion groups numbering approximately twenty in each group. We would like very much to make these buzz sessions in smaller groups, but face the problem of staffing these with discussion leaders.

The four sessions are entitled: (1) Anatomy and Physiology, (2) Adolescent Personality Development, (3) Dangers and Problems, and (4) An Ethic of Behavior. The first session is preceded by a film entitled "Girl to Woman" for the girls, and "Boy to Man" for the boys. The second session, "Adolescent Personality Development," is presented by a psychiatrically oriented physician or similar person; and this lecturer tries to get over to the group of parents and teenagers why the emotional changes which they are experiencing at this age are to be expected and not considered abnormal.

For the third night, "Dangers and Problems," we are presently using a film "One Quarter-Million Teenagers," which actually directs itself solely to the problem of syphilis. However, our speaker touches on, and I must admit rather briefly, the other dangers and problems, such as alcohol, abortions, steady dating, etc. Although at present we feel that this is a very short time to devote to this, I must admit that a considerable portion of the discussion in the buzz groups both prior to and after this time, is frequently devoted to these questions. The fourth session, "An Ethic of Behavior," wraps up the total program and, I think, puts it in its proper perspective. We show the film "Early Marriage," and at present are looking for a better film along these lines. The formal presentation is made by a minister.

Prior to the first session the youth and parents are given a pamphlet with which you are all familiar. This pamphlet is put out by the AMA, and for the youth is called "Finding Yourself." The parents receive a pamphlet entitled "Facts Alone Are Not Enough."

Buzz Sessions Follow

After the final presentation, our discussion groups then assemble in their individual rooms. Each group is headed by two discussion leaders, a clergyman and a physician, and we try to answer the questions and direct the discussion as truthfully and candidly as possible without any hedging or equivocation when the question is honestly asked. We do provide the discussion leaders with sample questions asked in previous sessions in case a lag seems to develop in the discussion, and generally after one or two questions are answered the discussions flow rather freely.

We have tried our discussion groups in all sorts of combinations, the parent being with the child for all four sessions, and separated for one, two, three or four sessions. We have found throughout the years that the youth express themselves more

freely, ask more questions, and enter into discussions more actively without the parent present. When given an opportunity to express themselves on the evaluation sheets, they desire to be separated. The parents do not feel as strongly about this as the youth. Some feel that without being present they cannot know what their children are thinking, and we have found at times some parents use these sessions to get through a point, an "I told you so" situation. At present we are separating them for the first three nights, and bringing them back together for the last night. We try to get over to the parent in the first session the reason for this separation; and the youth, as I have said, are very receptive to this. We hope that as they go home together each night some discussion will ensue about that night's topics, or in the week between the courses communication between the youth and parent will occur.

These courses are held at a church building which adjoins the Y for two main reasons. It provides a church setting for these courses, and numerous small classrooms are available for our buzz sessions. We try to weave throughout the series a moral code, yet without saying "Thou Shalt Not."

Try to Establish Rapport

Our series involves approximately thirty-five physicians and thirty-five clergy each year. We try to keep our leaders for the discussion groups the same every night so that rapport which is established the first night will be maintained throughout the series. We are finding it more difficult each year to assemble our physicians and ministers. I think this is due to the necessary involvement of both these groups in other pressing needs of the community. However, I must admit I noticed some lethargy on the part of the physicians to respond as one would think they should under the circumstances. I would presume that as other groups begin to offer a similar course, the need may diminish for our group. Yet our enrollment has shown no decline; and until, or if, our public schools take over this function, I personally doubt that it will.

Physician's Role

The physician's role in these series is closely entwined with the clergy's role, and I think that we should admit that the physician does minister to people and the clergy do heal people. It is sometimes impossible in the discussion groups to separate a question on physical, moral, or ethical basis. However, both clergy and physicians are known for their ability to expound on almost any subject, and when a question involves primarily a physical answer, fact, or explanation, then the physician will take this question. When perhaps the indication is that the question is pointed toward a more moral or ethical situation, the minister will field this question.

I must add here that it is very important to choose both your physicians and ministers. Certainly some physicians cannot relax and talk with these groups freely without appearing somewhat uncomfortable themselves, and we have also had the problem of the physician who has all the answers or tries to drive home some point to which the series should not be related. However, throughout the years we have developed a corps that is willing to stay on and work with us. Each year we try to rotate a few off and add some new ones in order to give the series new blood and new ideas.

I do not know the future of this course at the Northside YMCA. Certainly, I can see it being phased out as this type of education is offered in public schools or other areas.

We have said each year that we would offer a more advanced course to the eleventh and twelfth-graders in the fall. However, at the present time our machinery has not been active enough to do this. I think, certainly, that this is needed.

At the end of the last session both parents and youth are given an evaluation sheet, which by checks in different columns can indicate to us their impression of the series as a whole and each speaker and buzz session individually. These are then analyzed prior to each spring series. We go over these, trying to make adjustments where they are indicated.

I do not know how difficult it would be to establish this type of series in a smaller town, but certainly the need exists throughout Georgia. I am also not sure whether the general public is willing to accept this.

1293 Peachtree Street

AMERICAN MEDICAL WOMEN TO MEET IN ATLANTA NOVEMBER 29-DECEMBER 2

The American Medical Women's Association, Inc., will hold its annual meeting and scientific session November 29 through December 2, 1967 at the Dinkler Plaza Hotel in Atlanta, Georgia. Executive Board Sessions will be held November 29 and 30; the Scientific Session will be held Friday, December 1; and the House of Delegates will meet December 2.

Friday's Scientific Session will have "The Child of a Problem Family" as its theme. Topics include "High Risk Pregnancy," "The Fragile Neonate," "The Child's Heredity," "Infection in Fetus and Young Child," "Child Rearing in the Problem Family," and a panel will discuss "Optimal Child Health and Development."

The Scientific Session has been approved by the American Academy of General Practice and accredited for elective hours. All physicians and spouses are invited to attend. There is no fee.

A REVIEW OF CURRENT CONCEPTS REGARDING INTRACRANIAL SACCULAR ANEURYSMS*

Marshall B. Allen, Jr., M.D., *and* William H. Meeks, M.D.,** *Augusta*

Part II—Symptoms, Signs and Diagnostic Procedures

SYMPTOMS AND SIGNS of intracranial aneurysms differ according to the site and size of the lesions and whether intracranial hemorrhage has occurred. In order to make a coherent discussion of the clinical status of patients with such lesions, we have categorized them according to the integrity of the walls of the aneurysm.

Unruptured Aneurysms

The most common symptom of an unruptured aneurysm is headache[25, 38] which is frequently intermittent. Headaches associated with these lesions vary greatly in duration but episodes may progressively increase in severity and length. Since most aneurysms occur supratentorially, headaches are usually localized to the side of the head affected or are referred to the region of the ipsilateral forehead or orbit.[15] Symptoms are often due to vessel distension or stretching of the meninges, the supratentorial portion of which is innervated by branches of the trigeminal nerve.[7, 40] In addition, intracavernous aneurysms may press directly upon the gasserian ganglion or selected divisions of the trigeminal nerve.[18]

Analysis of data collected by the Cooperative Study of Aneurysms and Subarachnoid Hemorrhage has indicated that there is a critical size of unruptured aneurysms of the internal carotid artery for the production of symptoms.[26] Symptoms were not produced by lesions less than 3 mm. in diameter and very few unruptured aneurysms less than 7 mm. in diameter on the internal carotid artery produced neurologic signs. The size of middle cerebral aneurysms critical for the production of symptoms appears to be slightly less than that of aneurysms of the internal carotid artery.[26]

The signs and/or symptoms produced by these localized masses depend upon the site of the lesions. Infraclinoid aneurysms may fill the cavernous sinus compressing the oculomotor, trochlear, and abducens nerves and all or portions of the trigeminal nerve. Signs may be difficult to distinguish from lesions in the region of the superior orbital fissure. Symptoms of cavernous sinus lesions begin with pain in the face or a sensation of numbness followed by diplopia. Pain is usually limited to the distribution of the trigeminal nerve and is likely to be persistent rather than paroxysmal. There may be hypesthesia or hypalgesia in the distribution of the affected divisions of the trigeminal nerve.

Jefferson[18] was able to distinguish posterior, middle and anterior cavernous sinus syndromes depending upon the impaired nerves. With lesions in the posterior cavernous sinus, deficits may be limited to abducens palsies with involvement of all three divisions of the trigeminal nerve; whereas the oculomotor, trochlear and abducens nerves may be paralyzed with lesions of the middle or anterior cavernous sinus. In addition, the first and second divisions of the trigeminal nerves are involved with lesions of the mid-portion of the cavernous sinus. Aneurysms of the anterior cavernous sinus involve the first division of the trigeminal nerve, in addition to the nerves supplying the extraocular muscles. Exophthalmos may result from aneurysms in the anterior portion of the cavernous sinus.[9] Lesions in this area also may impinge upon the ipsilateral optic nerve.[13, 14, 15]

Supraclinoid aneurysms, originating near the posterior communicating artery, may press directly upon

* *Supported in part by USPH Grant No. NB 04345.*
** *From the Division of Neurological Surgery, Medical College of Georgia and Veterans Administration Hospital, Augusta, Georgia.*

the third nerve producing a dilated pupil, ptosis and oculomotor palsy.[17] Diabetes may enter into the differential diagnosis since it also produces the acute onset of oculomotor palsy.[5, 20, 41, 59] However, third nerve palsies associated with diabetes are much less likely to be associated with pupillary dilatation than those associated with aneurysms of the internal carotid artery[5, 41] which may press upon the third nerve. Explanation lies in the fact that the parasympathetic fibers originating in the nucleus of Edinger-Westphal lie in the superior medial portion of the oculomotor nerve at about the mid point in its course through the subarachnoid space.[19, 49, 50] These fibers of the oculomotor nerve may be vulnerable to compression by an adjacent aneurysm.

Unruptured aneurysms of the anterior communicating artery must become quite large before they produce neurologic deficits. Aneurysms of the anterior communicating or internal carotid artery may be associated with unilateral blindness, bitemporal hemianopsia or changing visual acuity depending upon which fibers of the optic nerves or tracts are involved.[14, 15, 16, 58] Rarely aneurysms of the anterior communicating artery, as well as lesions of the internal carotid, may become large enough to produce pituitary damage.[4, 8, 14, 60] Indeed, several cases have been reported in which surgeons have biopsied aneurysmal walls when approaching what was thought to be a pituitary tumor.[60]

Large aneurysms of the internal carotid artery are occasionally associated with hemiparesis through pressure on the cerebral peduncle or by alteration of distal blood flow.[26, 38] Large lesions of the middle cerebral artery may also produce hemiparesis by more direct involvement of the cerebral cortex. Seizures are reported to occur with intracranial saccular aneurysms in most locations but are common with symptomatic aneurysms of the middle cerebral artery (36 per cent).[26] Various combinations of cranial nerve palsies, ataxia, sensory deficits, and spasticity may be seen with large lesions of the basilar or vertebral arteries.[30]

Ruptured Aneurysms

Rupture of aneurysms is usually associated with abrupt onset of symptoms or sudden changes in the neurologic status associated with the entrance of blood into the subarachnoid spaces. However, infraclinoid aneurysms may rupture within the cavernous sinus leading to spontaneous arteriovenous fistula with its typical findings of bruit, pulsating exophthalmos and dilation of the retinal and conjunctival veins. Patients may eventually lose vision in the affected eye if the lesion is not treated.[38]

Aneurysms of the middle and anterior cerebral arteries sometimes bleed into cerebral tissue leading to intracerebral hematoma which may not be accompanied by subarachnoid blood. Such lesions are usually associated with a depressed state of consciousness and there may be hemiparesis, visual field defects, sensory disturbances and seizures.[38]

Subarachnoid hemorrhage is the usual result of aneurysmal rupture. In such cases there is an abrupt onset of headache, frequently beginning in the region of the aneurysm, although the headache may be referred to distal areas[38] such as the neck or occiput. The headache is frequently generalized. Subarachnoid bleeding may also produce back pain and a positive Kernig's sign. These symptoms are attributed to meningeal irritation.[52] Accompanying complaints may be photophobia, nausea, vomiting, malaise, fever and nuchal rigidity. There is frequently a depressed state of consciousness and neurologic deficits may develop as a result of pressure upon vital structures by the aneurysm or intracranial collections of blood (subarachnoid, intracerebral or subdural) or as a result of vascular spasm which may accompany subarachnoid hemorrhage.

If blood accumulates, the patient may be quite depressed. Twenty-seven per cent of patients with ruptured aneurysms die within a week.[26] Assuming no massive collection of blood and no occlusion of major blood vessels has occurred, there is a gradual recovery during the subsequent several days unless hemorrhage recurs.

The incidence of recurrent hemorrhages is of prime importance in selecting the time and type of therapy for intracranial aneurysms. Reports concerning the subject are numerous but difficult to interpret since criteria for rebleeding frequently differ.

Locksley[26] has reported a *peak* incidence of recurrent hemorrhages from aneurysms of the anterior Circle of Willis at the end of the first week with a gradual tapering throughout the second and third weeks with a plateau thereafter. These results are consistent with the findings of McKissock, et al.[27, 28] and Björkesten and Troupp who were reporting on the results of conservatively treated patients. Locksley[26] reports that the risk of rebleeding during the first month varies from 0.5 per cent to 4.0 per cent on any day and that the risk is greatest for aneurysms of the anterior communicating artery followed by lesions of the internal carotid and middle cerebral vessels. His figures indicate that 66 to 76 per cent of all rebleeds of conservatively treated aneurysms will have recurred by the end of four weeks and that 88 to 94 per cent of all rebleeding episodes will have occurred within the first year.

Numerous factors influence the incidence of rebleeding. Richardson, et al.[43] have analyzed 14 factors which they felt might contribute to recurrent hemorrhage of an aneurysm of the anterior com-

municating artery. They were able to construct an equation for the prediction of rebleeding episodes which proved to have an accuracy of 83.5 per cent. Locksley[26] has constructed a table which gives the risk of hemorrhage on each day for individual aneurysms. However, it does not consider each of the variables taken into account by Richardson's equation.

Clinical Evaluations

History and Physical Examination play a major role in the diagnosis of intracranial saccular aneurysms. Since the clinical symptoms and signs have been reviewed above, we will not recount the details of these aspects of the clinical evaluation which direct subsequent diagnostic tests. Discrete cranial nerve signs may be of considerable assistance in localizing the site of a suspected aneurysm. Depression of the state of consciousness and/or papilledema may suggest the presence of a complicating intracranial mass lesion for which early therapy is indicated. Diagnostic tests will be discussed in the order that we usually consider them.

Plain Skull X-rays

Plain x-rays of the skull are obtained on all patients suspected of harboring intracranial mass lesions on the Neurosurgical Service at the Medical College of Georgia. Heuer and Dandy[10] in 1916 demonstrated curvilinear shadows in the region of the sella turcica which at autopsy were found to be the result of calcium within the walls of bilateral subclinoid aneurysms of the internal carotid arteries. Hamby[9] gives Spiess and Pfeiffer credit for having made the first antemortem diagnosis of an intracranial aneurysm from plain skull x-rays. Their diagnosis was confirmed at autopsy. The classical descriptions or roentgenographic findings associated with intracranial aneurysms were made by Sosman and Vogt in 1926.[48] They serve as the basis for the material to be presented below.

Calcification in the wall of an aneurysm may be present as thin plaques, usually semilunar in shape with the concavity upward and to one side of the sella (See Figure I). If the aneurysm is large, it may extend above the sella but it remains lateral to the midline on the anteroposterior projection. This type of calcification can usually be differentiated from the "flocculent . . . calcification" occurring above the sella turcica associated with craniopharyngiomas. Hyperostoses associated with meningiomas in this area can ordinarily be differentiated easily. The bony spicules associated with the latter usually radiate outward and upward. Calcification in gliomas occurring in this region usually has a "granular or nodular distribution" and is "quite irregular in outline." The only lesion in this area which Sosman and Vogt considered difficult to differentiate on a purely radiographic basis was a dermoid cyst. Hamby[9] has added the observation that subclinoid or intracavernous aneurysms are much more likely to show evidence of calcification than are such lesions in other areas of the cranial cavity. Explanation is thought to lie in the chronicity of lesions in this location.

Intrasellar erosion which is indistinguishable from that due to pituitary tumors may result from aneurysms of the internal carotid artery.[60] More commonly there is unilateral erosion and loss of a single anterior clinoid process or loss of the lateral half of the body of the sphenoid bone. Erosion may include the ipsilateral posterior clinoid process.[9, 48, 54] Jefferson[15] has pointed out that aneurysms of the anterior

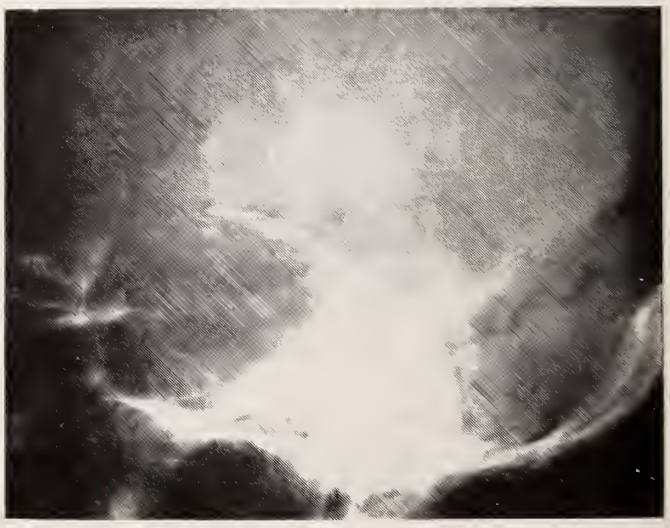

FIGURE I

AP and lateral skull x-rays of a patient with a large parasella aneurysm proven by angiography. Note the thin curvilinear plaques of calcium with the concavity upward lying to the left of the midline. Also note the erosion of the sella turcica.

portion of the carotid siphon tend to widen the superior orbital fissure. Such lesions may tend to erode the outer wall of the optic canal.

Lumbar Puncture

Lumbar puncture is the only method by which subarachnoid hemorrhage can be proven. A limitation of the procedure is the frequent occurrence of a traumatic tap. Methods of differentiating blood in a specimen of fluid resulting from traumatic puncture and that resulting from spontaneous hemorrhage have been reviewed by Tourtellotte, et al.[56] They include: (A) Differential gross examination or counting red blood cells in successively collected samples of the cerebrospinal fluid; (B) Examination of the cells for crenation; (C) Observing the collected fluid for the ability to clot on standing (which only occurs if the red blood cell count in the collected fluid exceeds 200,000);[26] (D) Repeating the lumbar puncture at other levels or on subsequent days for comparison of specimens; and (E) Determination of the relative type and quantities of blood pigments in the spinal fluid. McMenemey[29] has stated that the most reliable method is observation of consecutively collected specimens for varying quantities of blood.

Tourtellotte, et al.[56] state that xanthochromia may be seen in cerebrospinal fluid if contamination with blood at the time of lumbar puncture is heavy. They recommend differentiation of fresh blood from that which has been present in the cerebrospinal fluid for 2 to 3 days by spectrophotometric methods. An immediate breakdown product of blood is oxyhemoglobin, the spectrographic range of which is distinctly different from bilirubin which appears 2 to 3 days later.[2] The concentration of bilirubin rises as the quantity of oxyhemoglobin falls. Thus by spectorgraphic methods one can distinguish the products of fresh bleeding.

Periods required to clear blood pigments from the cerebrospinal fluid vary from 6 to 30 days. Tourtellotte stated that slow clearing is frequently associated with old age, past or family history of diabetes or vascular disease, permanent neurologic deficit and possibly the size of the hemorrhages.[55]

Lumbar puncture may furnish evidence of increased intracranial pressure. We usually limit the quantity of fluid removed if the pressure is elevated. If the patient shows lateralizing signs, we delay lumbar puncture until angiographic studies have indicated the normal location of intracranial structures.

Cerebral Angiography

The only method by which intracranial aneurysms can be positively identified short of direct exposure is by the injection of radiopaque materials into blood vessels. Roentgenograms are made as the material passes through the cerebral circulation. Carotid angiography was introduced by Moniz in 1927[31] but did not become popular in the United States until after the Second World War. A brief review of the development of cerebral angiography is given by Perret and Nishioka.[37]

Initially, cerebral angiography was performed through direct exposure of the carotid artery in the neck but this has been replaced by percutaneous injections. Moniz, et al.[33] first reported vertebral angiography in 1933 utilizing subclavian injections. A method of direct exposure of the vertebral artery was described by Sjöuquist[47] in 1938 but this was replaced by percutaneous vertebral injections in 1940.[53] Since the advent of pressure injectors, we have used retrograde brachial injections for opacification of the right carotid and the right vertebral and basilar system. Manual injections are made into the left carotid artery. In cases of failure of visualization of the basilar system and for completeness of work-up for aneurysms, we perform percutaneous retrograde brachial injections on the left.

The initial contrast medium used by Moniz[32] was strontium bromide which gave way to 25 per cent sodium iodide and subsequently thorium dioxide.[24] Injection of the initial two substances was accompanied by a high incidence of reactions. Thorium dioxide injections were accompanied by retention in the arterioles and capillaries.[35] Late complications resulting from its radioactivity have subsequently been reported. More recently, water soluble organic iodides have come into common usage. Numerous organic iodide compounds are now on the market, and most contain approximately 50 per cent iodine.[37] The incidence of complications of angiography now ranges from 2 to 10 per cent.[6, 13, 37, 39]

As sites of injection and contrast media have changed, so has x-ray equipment. We routinely obtain serialographic films utilizing exposures of 1/10 to 1/30 second and 98 kilovolts requiring 500 to 1,000 milliamp generators. Films are made in two planes with simultaneously firing x-ray tubes and may be made on our present equipment at 12 exposures per second although cineradiography can far exceed this capacity. Injections are made by hand or with pressure injectors which may be triggered by the pulse or EKG in order to obtain the most efficient filling of the vascular system.

Angiography is mandatory before the surgical therapy of aneurysms is considered. It is also useful in the diagnosis of complicating intracranial lesions such as hematomas. When we are considering the presence of one of these complicating lesions, we consider the angiogram an emergency procedure. Since we treat aneurysms at the earliest time feasible as a scheduled procedure, we perform angiography

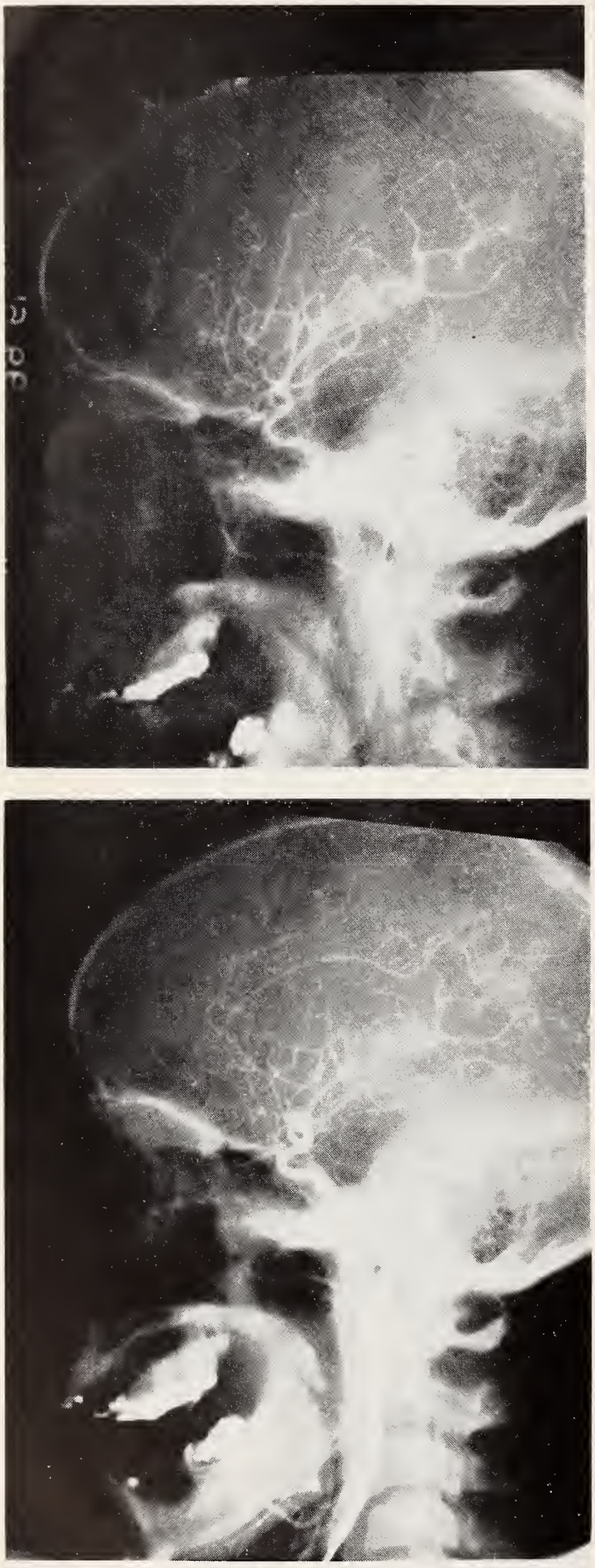

FIGURE 2

A reproduction of cerebral angiograms done nine days apart. Note the absence of visualization of the aneurysm or anterior cerebral artery on the first study. The second angiogram clearly outlines an aneurysm at the bifurcation of the internal carotid artery. This lesion was confirmed by the anterior projection in the second study. (Case submitted courtesy of Drs. William Lowery and R. S. Dickinson, Albany, Georgia.)

at the earliest convenient time. We do not usually consider the procedure an acute emergency (i.e. to be done in the middle of the night) unless a complicating hematoma is being considered.

The accuracy of angiography is difficult to assess. Using four vessel angiography in a small series of patients, Sutton and Trickey were able to report a diagnostic accuracy of 96 per cent.[51] Perret and Nishioka have reported[37] aneurysms found by a second angiogram in 3.8 per cent of those whose initial arteriogram had failed to demonstrate a lesion. An example of such a case is presented in Figure 2. Vascular spasm was apparent at the time of the initial angiogram but an aneurysm was clearly outlined on a repeat study nine days later.

Policies regarding the type of anesthesia for cerebral angiography vary widely. Some authors have suggested that general anesthesia reduced the incidence of complications[46] while others have contended that general anesthesia may conceal complications.[39] Seventy-nine per cent of angiograms performed as a part of the Cooperative Study of Intracranial Aneurysms and Subarachnoid Hemorrhage were performed under local anesthesia.[37] The complication rate among patients having angiograms under general anesthesia was 8.2 per cent as compared to 5.7 per cent under local anesthesia. Recurrent hemorrhage was reported to be 2.4 times more frequent among cases with angiograms under general anesthesia than among those with angiograms under local anesthesia. We routinely use local anesthesia except on severely uncooperative patients, usually children, but rarely combative adults.

In summary, we consider angiography a safe procedure to be performed at the earliest convenient time. Examinations are repeated in patients who have had unexplained hemorrhage. Routinely three and frequently all four vessels supplying the brain are examined when investigating subarachnoid hemorrhage.

Subtraction Technique

Anticipated improvements in angiography will include advancement in subtraction techniques. In this procedure a reverse (negative print) of a "scout" x-ray is superimposed upon an x-ray of the same body region obtained after an injection of contrast media or substance. The reversed images tend to cancel out the detail of all structures which are present at the time of both x-rays. This allows the pattern of the contrast media to be accentuated. The procedure is most useful in defining angiographic patterns which are hidden by osseous structures.

The technique described by Des Plantes and subsequently by other investigators[12, 23, 42, 57] deals with positive and negative photographic or x-ray films.

More recently Picker X-ray Corporation and Motorola have devised an apparatus which instantaneously performs the subtraction electronically projecting the resulting image on a television screen. The subtracted image may then be photographed. When used as a part of cerebral angiography, osseous structures are cancelled leaving primarily an outline of the vascular structure (See Figure 3).

Electroencephalography

Large unruptured intracranial aneurysms impinging upon the frontal or temporal lobes may produce electroencephalographic changes similar to those seen with other mass lesions. Electrographic tracings of such patients may show loci of delta waves, most often in the anterior temporal region.[11] This effect is thought to be the result of local disturbances in arterial blood supply. Unruptured small aneurysms and unruptured parasellar lesions, even when large, rarely produce significant changes in the electroencephalogram.[44]

Krayenbühl[22] has reported that 80 per cent of electroencephalographic tracings from patients with ruptured aneurysms were abnormal, but the changes were so non-specific that they were not often helpful in the discrete localization of the lesions. These findings are consistent with the results of Rohmer, et al.[44] and Roseman, et al.[45] A delta focus usually indicates a hematoma, thrombosis or possible vasospasm. It may be seen with aneurysms of the middle or anterior cerebral complexes. If the delta focus persists for three weeks, it is thought to be evidence of hematoma formation.

These studies suggest that one of the most practical uses for electroencephalography in the diagnosis of intracranial aneurysms is to assist in determining which of two or more demonstrated aneurysms has bled.[38]

Brain Scanning

The use of radioactive materials for the diagnosis of intracranial lesions was initially reported by Moore in 1948[34] and has become standard procedure in most neurosurgical clinics. Our experiences at the Medical College of Georgia with brain scanning for the identification of various intracranial lesions have been reported recently.[1] We were not able to identify uncomplicated and untreated intracranial aneurysms by this technique although Overton, et al.[36] reported a 57 per cent identification rate. Likewise the offending lesions in seven patients who had subarachnoid hemorrhage were not identifiable. Intracerebral hematomas were successfully demonstrated though not with the accuracy of Kramer and Rovit[21] who reported consistently positive identification in seven cases studied. In our series positive scans were obtained on five and a suspicious scan on one of six patients with proven subdural hematomas.

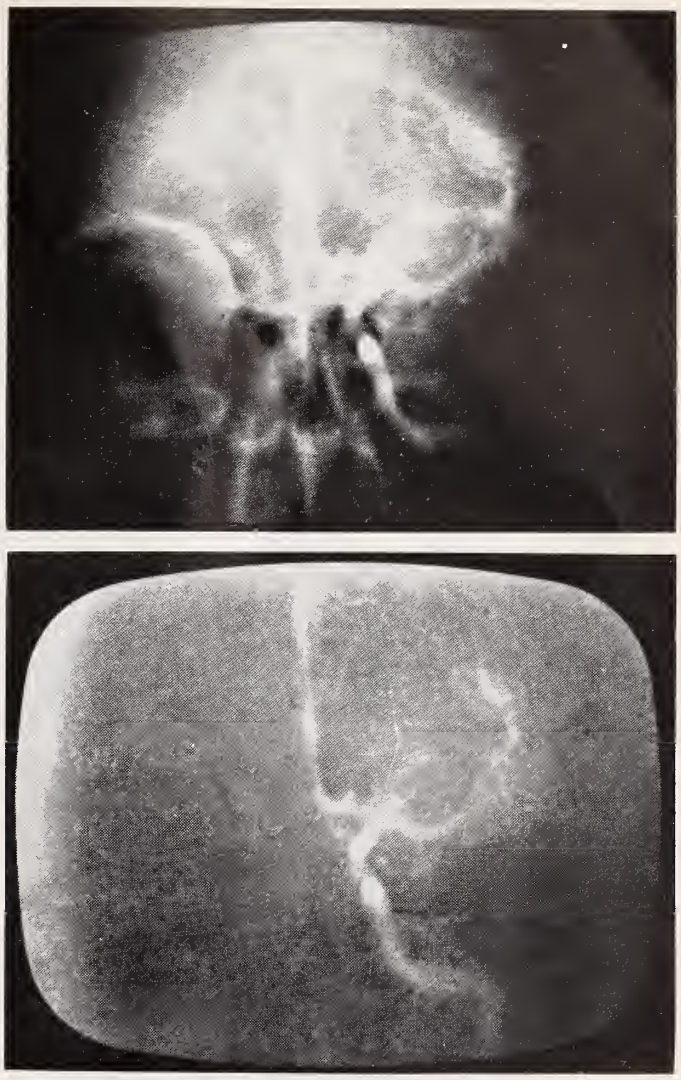

FIGURE 3

Reproduction of an arteriogram as seen through the television monitor. (A) The plain angiogram shows an aneurysm at the bifurcation of the left internal carotid artery. However, the details of the aneurysm are obscured by the overlying rim of the orbit. (B) The same angiogram with the osseous structures removed by electronic subtraction technique. Note that the rim of the orbit no longer obscures the outline of the aneurysm.

In summary, brain scanning has helped us to identify intracranial hematomas which may complicate aneurysmal rupture on occasion but we have not found the procedure helpful in identifying the unruptured or ruptured aneurysm which was not complicated by an intracranial hematoma.

Comments

In this part selected material concerning the diagnosis and evaluation of intracranial aneurysms has been reviewed. The review is far from comprehensive and a critic might appropriately comment that we have emphasized minor points while brushing over the obvious in many areas. In this part we have tried to clarify points which are discussed frequently during conferences and rounds or on which we are questioned by referring physicians.

This series will be concluded in the next issue with a brief review of the alternative modes of therapy of this important cause of strokes.

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80 Years Ago—

MECHANICAL TREATMENT OF VOMITING IN PREGNANCY*

(Read by Title at the Thirty-eighth Annual Session.)

BY J. W. FLANDERS, M.D., WRIGHTSVILLE, GA.

Nausea and vomiting in pregnancy is so common that it is regarded as a physiological necessity, and a majority get well without treatment. There are cases, however, which resist all treatment short of the complete removal of the cause. The belief by the people that vomiting is absolutely necessary for the well-being of pregnant women has no doubt caused a great deal of suffering where relief might have been obtained. I have often heard great fears expressed for pregnant women on account of the absence of nausea and vomiting, and for this reason we are seldom called on to treat those cases until their conditions have become alarming.

In 1875 a physician in Baltimore, whose name I have forgotten, published in the *Maryland Medical Journal* his experience in the treatment of one of those uncontrollable cases. He was called into the country to see a lady in her first pregnancy, suffering from nausea and vomiting, and after exhausting his skill in the vain attempt to relieve her, and seeing that she could not live much longer without relief, suggested to her husband that he would have to produce abortion or his wife would die. He urged the doctor to do anything that gave any hopes of relief. He attempted to produce abortion by pushing his finger through the cervix and rupturing the membranes. Failing in this he returned to the city to procure assistance, and to his astonishment, when he returned, found his patient quiet, not having vomited since he left her. He did nothing more for her, and she went to term without further trouble.

I see in Pepper's System of Medicine that Dr. Copeman, of Norwich, England, claims to have made the same discovery of this plan of treatment about the same time and in the same way. It is a little strange that two men should have relieved a patient about the same time, in the same way precisely, under the same circumstances, and unintentionally at that.

Not long after the publication of the article referred to in the *Maryland Medical Journal*, I was hastily summoned to see Mrs. S., who was pregnant for the first time. Realizing the fact that her case was a grave one, I lost no time in getting to her bedside. She had been vomiting several days—in fact, had retained nothing on her stomach for a week. Her extremities were cold and pulse not strong enough to be felt at the wrist, and she was in a state of low, muttering delirium and vomiting a glairy mucus constantly. I gave her a dose of oxalate of cerium and ingluvin combined, and oiled my index finger and gently worked it into the cervix and pushed the uterus up. The vomiting ceased immediately. In a few minutes wine was administered, which was retained, it being the first thing her stomach had retained in a week. She went to term without further trouble; however, she was instructed to take a dose of lactopeptine after each meal.

Soon after this a medical friend, living in an adjoining county, called to consult me about the case of a lady to whom he had been called a few days before, and stated that she had been vomiting about four weeks, and during all this time had retained nothing on her stomach. She was then reduced to a skeleton and was so weak that she could not turn her head on the pillow without assistance. She had been under the treatment of another physician who had abandoned her to her fate. She was still vomiting a thin glairy mucus. I suggested to him the mechanical treatment above described. He reported to me that he carried out my suggestions and she vomited only once afterward, and he thought that was caused by some error in diet, and in a remarkably short time she had so far recovered as to attend to her household duties.

I could give other cases in which this treatment was successful, but deem it unnecessary. There have been so many articles published in THE MEDICAL JOURNAL within the last few years upon this plan of treatment that it seems useless to bring it to the notice of the profession again, but it does seem to me that any suggestion which gives promise of aid in this distressing class of cases would naturally attract attention, and should be given an opportunity at least to prove its right and title to a place on the list.

If it is true that increased functional activity of the spinal cord and nervous system is the cause of vomiting in pregnancy, as maintained by most authors, I cannot explain how this course of treatment gives relief, but I think Graily Hewitt is right in maintaining that uterine displacements are the most potent causes of vomiting in pregnancy.

** From "Transactions of the Medical Association of Georgia, Thirty-Eighth Annual Session, 1887."*

■ A case report is presented along with a discussion of its postulated etiology.

PLACENTA CIRCUMVALLATA ASSOCIATED WITH INTERNAL RUPTURE OF THE MEMBRANES DURING PREGNANCY

Richard Torpin, M.D., *and* J. C. Mitchell, M.D., *Augusta*

THIS WHITE WOMAN, 37 years of age, had heart disease (patent foramen ovale) and marked varicosities of her legs and vulva, but no edema. This was her eighth pregnancy over a ten-year period. All pregnancies terminated in living children excepting number five which aborted spontaneously at five months' gestation. In the present pregnancy, on account of second-half vaginal bleeding, she was suspected of having placenta previa.

She was one of twins. Her father died at the age of 63 of heart attack; her mother died of "hardening of the arteries"; one brother died of heart attack at 42; and she has two brothers and three sisters living and well. She has menstruated since the age of 13 and her menstrual periods have been fairly normal with 28-day interval. At about six months of pregnancy she had vaginal bleeding which ceased after a few days. At the time of labor her laboratory reports were within normal limits: Rh+, Hg. 11 Gm., Bl. Pr. 120/70, urine normal and VDRL non-reactive.

Normal Labor

During the normal spontaneous labor (2½ weeks early) with cephalic presentation, the bulging membranes were ruptured by one of us (J. C. M.). The amount of amniotic fluid was normal or less than normal. The placenta and membranes were expelled intact six minutes after the delivery of the female infant, which weighed 3125 grams. The child was normal with the exception of a right clubfoot. The 505 gm. placenta measured 14 x 18 cm. It was circumvallate and the inner so-called "chorionic plate" measured 8 x 9 cm. In addition, a striking situation was noted. The amnion, the sac of which had been intact, was seen to have an old rupture hole entirely around the placental insertion of the umbilical cord which was slightly eccentric on the inner plate of the placenta (Fig. 1). The hole in the amnion measured 4 x 7 cm. and the edges of the amnion, around the hole, were not plastered to the placenta but were free over its surface, but the amnion peripherally was still attached to the circumvallate ring. It is postulated that at some time, possibly at the time of the six-months episode of vaginal bleeding, the chorion ruptured. This allowed the fetus and amnion fluid to be covered in the uterine cavity only by amnion. With increase in growth of the fetus, the amnion became stretched and, being unprotected by chorion, also ruptured. This rupture

FIGURE 1
Photograph of the placenta showing the rupture hole in the amnion.

From the Department of Obstetrics and Gynecology, Medical College of Georgia, Augusta, Georgia.

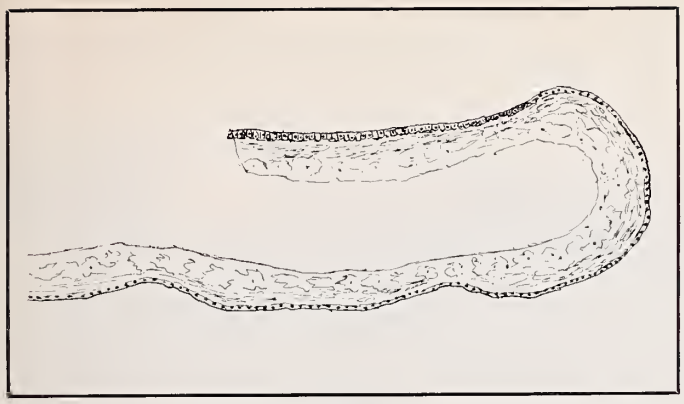

FIGURE 2

Margin of the rupture hole in the amnion showing infolding. Microscopic section, low power magnification.

took place only at the site surrounding the umbilical cord insertion on the placenta, and possibly allowed enough amniotic fluid to escape from the sac to reduce its volume, thereby putting pressure upon the fetus resulting in clubbing of the right foot, talipes equinovarus. The chorion was much restricted in area and was still attached over about one-third of the amnion sac, especially in the upper uterine part.

Since the amnion was otherwise intact around the fetus at all points excepting at the hole on the face of the placenta (Fig. 2), there developed no extraneous strings and the fetus escaped injury by string constriction.

Placenta Circumvallate

In the literature of the past hundred years there are approximately 100 case reports of extramembranous pregnancy. Almost invariably the placenta has been circumvallate. In these instances both amnion and chorion have ruptured, possibly simultaneously, and almost always in an area of the sac opposite to the placental region. This allows escape of all the amniotic fluid through the cervical canal. In addition, the fetus itself, as the membranes retract, has been expelled through the hole into the uterine cavity, which now lacks membranes except for the intact placental. The clinical history of patients that have progressed to or near term has included subsequent constant leakage of the amniotic fluid per vaginum. The infant usually shows evidence of fetal compression: dolichocephaly, ears plastered to the sides of the head, curvature of long bones with not infrequently clubfoot.

Postulated Etiology of Extramembranous Pregnancy

Figure 3 is a diagrammatic illustration of the postulated development of placenta circumvallata. The early placental tissue extends over much of the fetal sac. This is gradually reduced throughout subsequent pregnancy, by constant detachment of the margin by tearing of the peripheral decidual bed. In this situation the original area of the placenta is excessive and the original area of the membranes is greatly restricted. The membranes composed of amnion and inactive chorion have, per se, no blood supply and depend entirely upon that of the adjacent decidual for nourishment. The membranes, however, must stretch and increase in area to cover the growing fetus and its attendant amniotic fluid. In placenta circumvallata the primary membrane area, so restricted, seems to have a tendency spontaneously to rupture sometime during gestation. Probably many of these abort but a few continue on as extramembranous pregnancies.

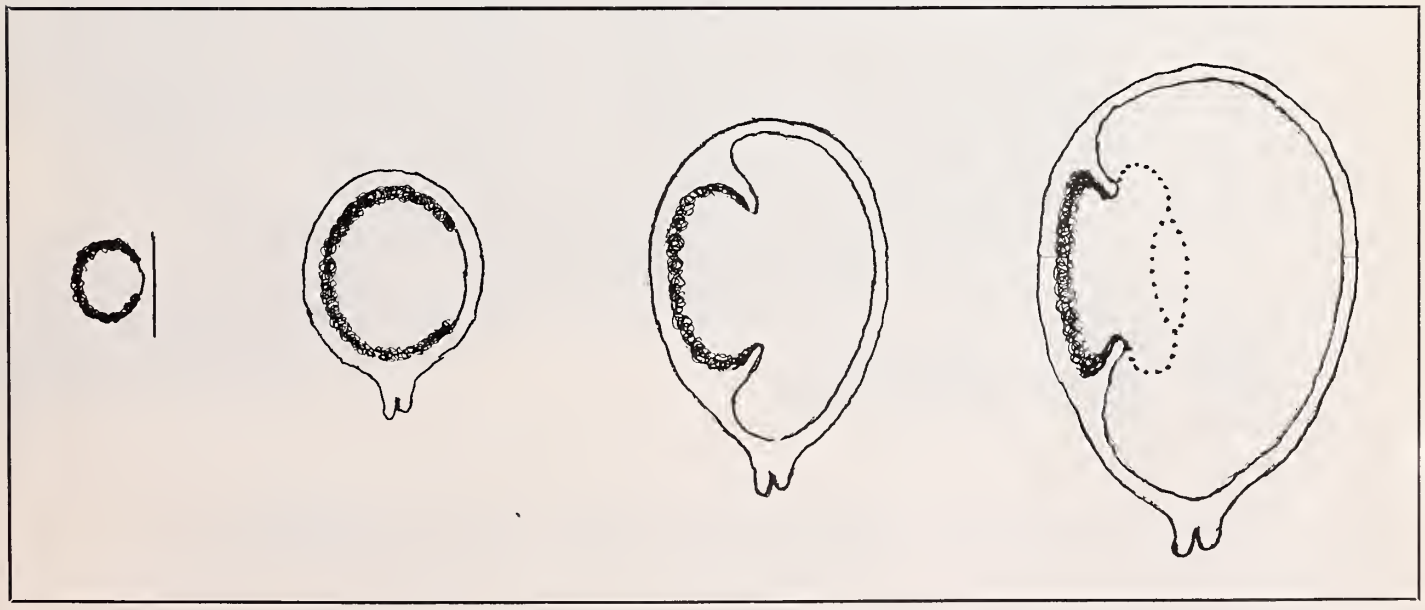

FIGURE 3

Diagram showing the various stages of placenta circumvallata. The early stage has a very restricted area of membranes which must expand to cover the enlarging fetus.

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■ The advantages of this method of visualization are outlined and discussed.

CATHETER AORTIC ARCHOGRAPHY TO STUDY CEREBRAL VASCULAR INSUFFICIENCY

Edgar D. Grady, M.D., Thomas R. Nolan, M.D., *and* A. J. Crumbley, M.D., *East Point*

TODAY, MOST PHYSICIANS AGREE that cerebral vascular accidents are commonly sequential to arteriosclerotic disease of the cervical arteries. More often than not, more than one of the four vessels supplying blood to the brain will have some pathology. It is imperative to visualize the aortic arch and all its branches going to the neck in order to evaluate the disease thoroughly and to perform effective and safe surgery when indicated. This is most simply done by catheter aortic archography.

Wates and Hutchinson,[8] after making a full postmortem examination of 100 cases of cerebral infarction, found that there was serious stenosis or occlusion of both internal carotid and vertebral arteries in 33 cases, of internal carotid arteries alone there were 18, and of vertebral arteries alone they found seven cases. There were 77 carotid vessels in 51 cases; of these 51 cases, 33 also had seriously diseased vertebral arteries. They concluded that application of therapeutic measures and assessment of their effectiveness require the utmost precision and diagnosis.

When Sproul and Pinto[7] made 110 studies for patients with clinical findings of cerebral vascular insufficiency, they found that thirty had multiple lesions involving the carotid and vertebral systems, as well as the occasional subclavian innominate system. There were a failure of bruits, palpatory pulse difference or lateralizing neurologic deficits to delineate the underlying pathology. Complete four vessel arteriography was urged by these authors.

DeBakey,[2] in studying 812 patients requiring arterial reconstructive operation for cerebral vascular insufficiency, found that multiple arterial involvement occurred in over 75 per cent of cases. He considered complete arteriographic visualization of the extra-cranial as well as the intra-cranial arterial bed to be essential to determine both the location and the extent of the disease. In some of the patients he studied, clinical manifestation pointed to carotid disease, but surgically correctable lesions were in the vertebral arteries. In other cases, patients with characteristic manifestations of basilar artery insufficiency were found after complete arteriographic studies to have responsible and surgically correctable lesions in the carotid arteries. These findings led him to conclude "that the classical approach to this problem based on the belief that the site and extent of the arterial lesion may be determined by a well defined pattern of clinical manifestations is no longer acceptable."

Young[9] and his co-workers from Cleveland Clinic conclude that their experience demonstrated multiple arteries frequently were affected and that definitive study required visualization of all four vessels and sometimes the aortic arch.

Bosniak,[1] after reviewing 150 arch aortograms, stressed the occurrence of anomalies, and that knowledge of a patient's anatomy as well as his pathology is necessary to perform safely any corrective procedure in the cervical arteries. Twenty-four per cent of his patients showed the left common carotid to originate from the innominate, in six per cent the left vertebral was found to originate directly from the arch, and two patients had the origin of the right carotid directly from the aorta.

Without a total picture of the circulation in all four vessels, one cannot evaluate where to operate.

Nor can one understand how to operate on what is selected for surgery unless he knows the state of all vessels. Safety for temporary occlusion of the vessels, whether to use a shunt to maintain patency, whether to do an endarterectomy, or a by-pass graft cannot be determined without total information.

Different Techniques

While there are a number of techniques in use to perform arteriograms of the neck vessels, aortic arch catheterization for pressure dye injection and rapidly made serial X-rays give the safest complete method. Direct puncture of the common carotid is inadequate for visualizing the origin of the common carotid and is useful in visualizing the posterior cerebral artery in only 30 per cent of cases.[5] Total arteriography of the neck vessels by supra-sternal aortic puncture may be satisfactory, but carries risk of mediastinal hematoma, intramural injection and does not allow repositioning of the patient. Direct subclavian injections also may produce good pictures, but require multiple punctures, carry the obvious risks of hemo- or pneumothorax, as well as risks of vessel damage. Percutaneous puncture of vertebral is also satisfactory when accomplished, but is the most difficult and most dangerous.

Technique for Archography

The patient is prepared by shaving and scrubbing both groins and both axillae with an antiseptic soap. He is well sedated, including liberal use of an antihistamine, such as 100 mg. of benadryl or 50 mg. of phenergan. The catheter is introduced into the artery by the technique originally described by Seldinger[6] and now widely used for various situations for which catheters need to be placed into arteries. (We have found the technique also useful in placement of catheters for intra-arterial infusion of radioisotopes or anti-cancer drugs.)[3, 4]

Using local anesthesia, the Seldinger needle is introduced percutaneously into the vessel selected (femoral or axillary). The flexible guide wire is next passed through the needle into the artery retrogradely, the needle is removed and a radiopaque preformed polyethylene catheter with curved tip and side holes is threaded over the wire into the vessel. The wire is removed, the catheter irrigated, and filled with heparinized saline as its stopcock is closed. Under image intensifier fluoroscopy, the catheter is manipulated into position in the ascending aorta. Sometimes the guide wire must be replaced and advanced so that its very flexible tip leads the catheter through an area of stenosis or around a kink in a vessel. On occasion the catheter cannot be passed because of arterial disease, in which case a second puncture site or even a third may be desirable. There have been situations, such as a very obese patient with a thick layer of tissue covering a hard vessel with a faint pulse, in which a direct exposure of the vessel with a small incision is needed. In some instances a catheter being passed around a stenosing plaque or through a kinked lumen may produce a subintimal dissection. If obstruction is met, before withdrawing the catheter to try a new entry, it is helpful to inject a few cc's of dye by hand under fluroscopic vision. If there has been vessel damage it will usually show as a subintimal accumulation of dye. In such a case, it is wise to abandon the procedure and try another day. After the catheter is properly placed, just proximal to the innominate artery, 50 cc of 80 per cent angioconray under 150 to 250 pounds pressure for the Pemco injector or 8 Kg./cm^2 for the Gidlund injector are injected as the rapid changer Shonander or Sanchez is fired to take 6 to 8 pictures at intervals of one-half second. Usually the first series of pictures is taken in an oblique position with the right shoulder posteriorly. Review of these pictures will determine if a second neck view is needed, either left shoulder posteriorly or an A.P. view in order to open both carotid bifurcations in one or another view. In most instances, it is desirable to get a single head view series with another injection as the Townes position is used. Here two pictures at the end of the series are delayed two seconds each to give a venous phase. This view does two things. First it shows if the main cerebral vessels are open, which must be known if carotid artery surgery is contemplated. Next, it will show if there is any shift in the major cerebral vessels by an intra-cranial mass, helping when there is no shift to verify that a pathological neck vessel is the primary source of trouble. Finally, another series of X-rays may be taken to show renals and iliacs as the catheter is withdrawn from a femoral artery or replaced to descend from the left axillary and subclavian (the descending aorta is very nearly impossible to cannulate through the right axilla and innominate.)

Illustrative Cases

There follow illustrative photographs of arteriograms demonstrating the use of this method. Particular situations in which diagnosis and treatment were especially dependent on such total arterial evaluation are presented.

Figure 1

R. W. B. No. 158363. Georgia Baptist Hospital. Age 54. In order to evaluate a transient C.V.A. with residual weakness of the right arm and leg and a

persistent speech defect, the aortic arch was catheterized via the right femoral artery. An arch study was done and in addition a selective catheterization of the innominate artery was added with the same catheter for detailed visualization of the cranial vessels. X-rays showed:

1. An anomaly of the innominate artery, which gave rise to the right subclavian and both common carotid arteries.
2. Complete occlusion of the left internal carotid artery at its origin.
3. A large plaque with narrowing of the right internal carotid artery.
4. A large right vertebral artery.
5. A small tortuous left vertebral artery.

Treatment: When the patient's condition worsened shortly after the archogram, the left carotid was explored and there was found an organized occlusion of the left internal carotid, whose lumen could not be re-established. At the same operation, an internal shunt was established in the right carotid system and maintained while an endarterectomy was done to widen the lumen of the right internal carotid artery. There has been no evident progress of the disease, and the patient has been rehabilitated.

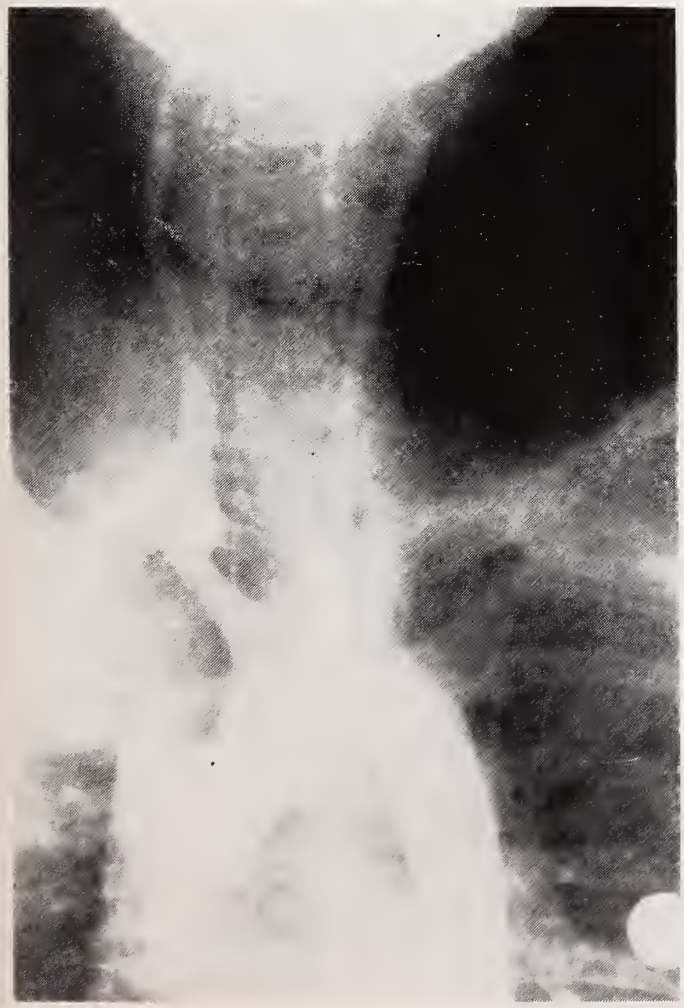

FIGURE 1

FIGURE 2 and FIGURE 3

Figure 2 and Figure 3

J. R. No. 65-6514. Piedmont Hospital. Age 65. Because of the long history of general chronic arterial insufficiency (polycythemia, right b. k. amputation) and a new development of frequently repeated episodes of dizziness and a disappearance of left radial pulse, an arch study was done. The catheter was passed via the right brachial artery into the proximal aorta.

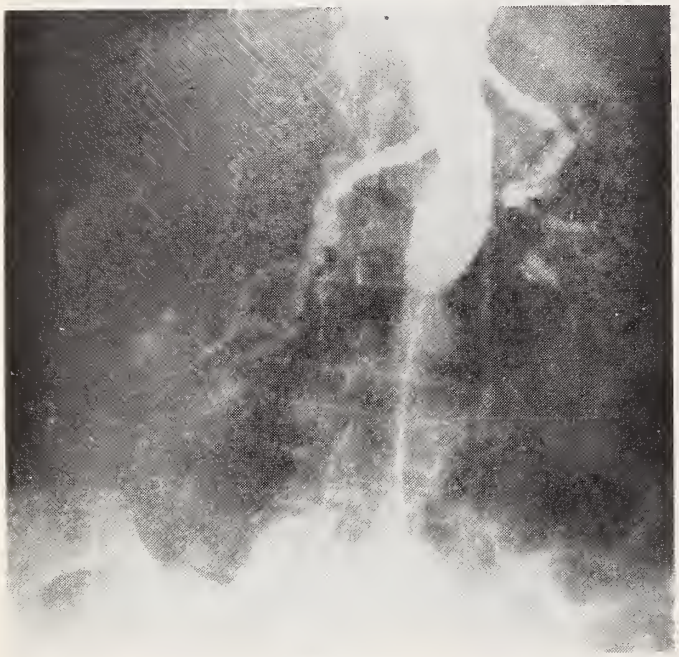

FIGURE 4

FIGURE 5

Arteriograms showed that the left subclavian artery terminated 3.5 cm. distal to its origin. The distal left subclavian was in late films demonstrated to fill by retrograde flow of the left vertebral (subclavian steal).

Treatment: Medical management by his own physician, curtailing vigorous use of left arm and giving long term regular intravenous doses of Dextran.

Figure 4

R. H. No. F59-466. Crawford W. Long Hospital. Age 50. Because of uncontrolled hypertension, bilateral subclavian bruits, and abdominal and bilateral femoral bruits, a catheter was passed via the left femoral artery for both arch and aorto-iliac and renal artery studies. Severe diffuse arterial disease was demonstrated, including classical fibromuscular hyperplasia of both renal arteries.

Treatment: Medical. Operation was not accepted.

Figure 5

J. F. P. No. 65-659. Crawford W. Long Hospital. Age 52. To evaluate gradual thickening and slurring of speech, weakness of left leg and foot progressive over two years and finding of a bruit over the right

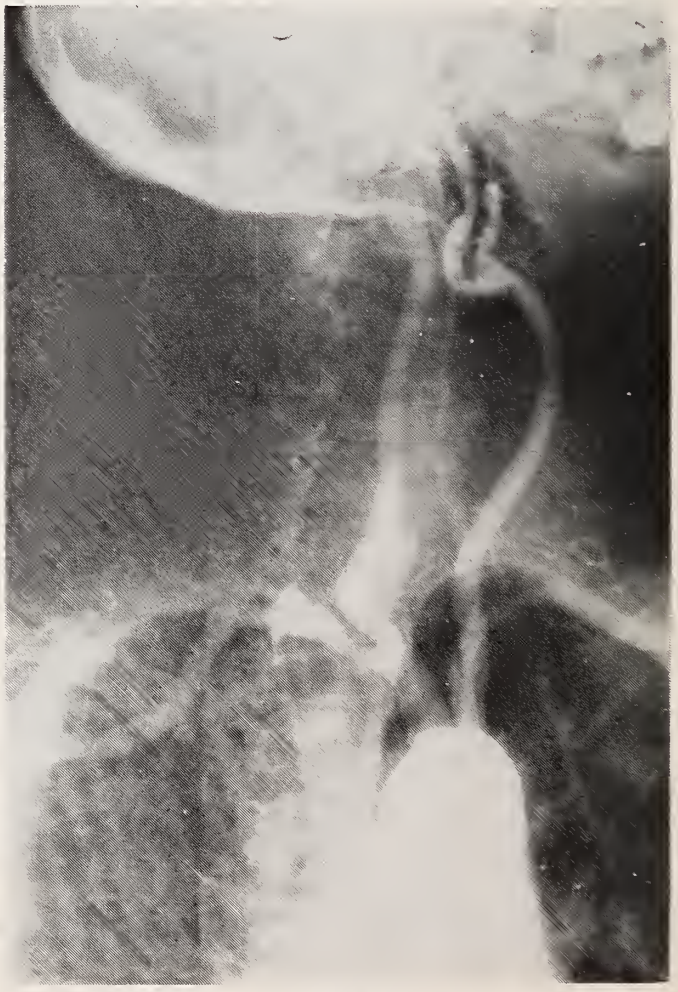

FIGURE 6

carotid, arch arteriography was done. A catheter was passed via the left femoral artery and pictures showed stenotic plaques over the left internal carotid and the right common artery.

Treatment: Right carotid endarterectomy. Function of speech and leg both improved.

Figure 6

J. T. No. F72-484. Crawford W. Long Hospital. Age 69. Because of a recent history of a right arm and leg weakness with a nearly complete recovery, an arch study was done through a catheter passed into and up from the left femoral artery. Evaluation showed atherosclerotic disease in both carotids and stenosis in both subclavian arteries.

Treatment: Left carotid endarterectomy. There has been no recurrence of evidence of cerebral ischemia.

Figure 7

L. R. H. Piedmont Hospital. Age 47. Because of transient aphasia and right hemiparesis with blurred vision and dysphasia, an arch study with catheter passed via a femoral artery was done. Normal vessels were demonstrated.

Treatment: Medical. Complete recovery.

Figure 8 and Figure 9

H. C. H. No. F58-855. Crawford W. Long Hospital. Age 54. This hypertensive had recurrent little strokes. Studies of the vessels of the aortic arch and of the renal vessels were made through the same catheter via the left femoral artery. Bilateral internal carotid artery stenosis and stenosis of the right renal artery were shown.

Treatment: Right carotid endarterectomy as first stage. Two weeks later transient leg weakness occurred. Bilateral carotid puncture arteriograms were done now and the site of the right endarterectomy was found to be good. Then the left endarterectomy was done. The clinical course has subsequently been good.

FIGURE 7

FIGURE 8 and FIGURE 9

Figure 10

A. M. No. F67-459. Crawford W. Long Hospital. Age 66. After an incomplete and transient hemiplegia, there had remained residually incapacitating dizziness and mental confusion. Therefore, the aortic arch was catheterized via the left femoral, and the study showed:

1. Complete obstruction of the right vertebral;
2. Short stenotic lesions of the innominate, left subclavian and left internal carotid;
3. A long stenotic lesion of the right internal carotid; and
4. Extensive atheromatous plaques of the left vertebral.

Treatment: Right carotid endarterectomy. Left carotid endarterectomy nineteen days later. Rehabilitation.

Figure 11

R. S. L. No. F69-950. Crawford W. Long Hospital. Age 68. A single episode of transient weakness of the right arm was definite enough for the arch study here. A small plaque was seen at the origin of the left internal carotid.

Treatment: This disease was considered too small to retard blood flow. It was believed that this plaque was probably the source of superficial thrombus and embolization and therefore the patient was given Dextran by her physician at regular intervals. Endarterectomy was to be considered only if new episodes should develop.

Figure 12 and Figure 13

G. L. G. No. 59-611. Crawford W. Long Hospital. Age 56. This patient, with congestive heart failure controlled by medical management, was evaluated by arteriography to investigate visual disturbance of right eye, frequent dizziness with near syncope and intermittent claudication of the right lower extremity. Attempted bilateral carotid punctures were unsuccessful. (He had a short thick neck.) Arch study was done with a catheter passed up through the left femoral artery (there was no right femoral pulse). The pathology was shown to be stenosis of the right subclavian and of the right innominate arteries. The catheter was partly withdrawn and additional arteriograms made to show occlusion of the right common iliac artery.

Treatment Was Staged: 1. Endarterectomy innominate.

2. By-pass graft from aorta to right common iliac and to left common femoral.

Rehabilitated to work.

FIGURE 10

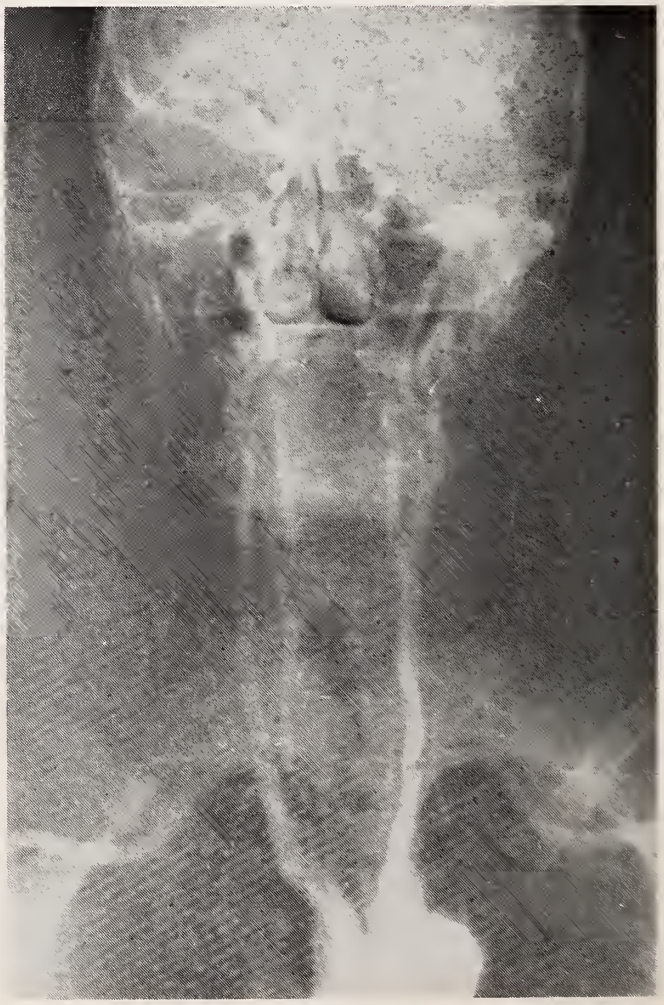

FIGURE 11

FIGURE 12 and FIGURE 13

FIGURE 14 and FIGURE 15

Figure 14 and Figure 15

M. J. G. No. F64-337. Crawford W. Long Hospital. Age 50. There was severe hypertension and a loud bruit was heard over the right carotid. Arteriography of the neck and renal vessels via a femoral catheter showed severe stenosis of the right internal carotid and showed normal renal arteries.

Treatment: Because her physician wished to be vigorous in anti-hypertensive treatment without danger of decreasing the needed cerebral flow when pressure through a stenosed carotid artery would be reduced, the carotid endarterectomy was done.

Summary and Conclusions

The authors have described the method of catheter archogram to study the cervical vessels when evaluating the patient with cerebral vascular insufficiency. Its use can be diversified to accomplish total vessel study of all vessels that might be involved in the chest or neck, using either axillary or femoral artery entry. If other vessels study is needed (cerebral, renal, iliac), it often can be obtained at the same session using the same catheter by selective carotid or innominate catheterization or replacement of catheter tip in abdominal aorta.

Total arterial evaluation is needed for the patient with cerebral vascular insufficiency because of frequent multiple lesions or anomalies in the neck and chest vessels or because of other lesions of renal or iliac vessels. Catheter archogram is the most valuable method of total arterial evaluation of the circulation to the head for the stroke patient. Numerous cases have been presented to illustrate this point.

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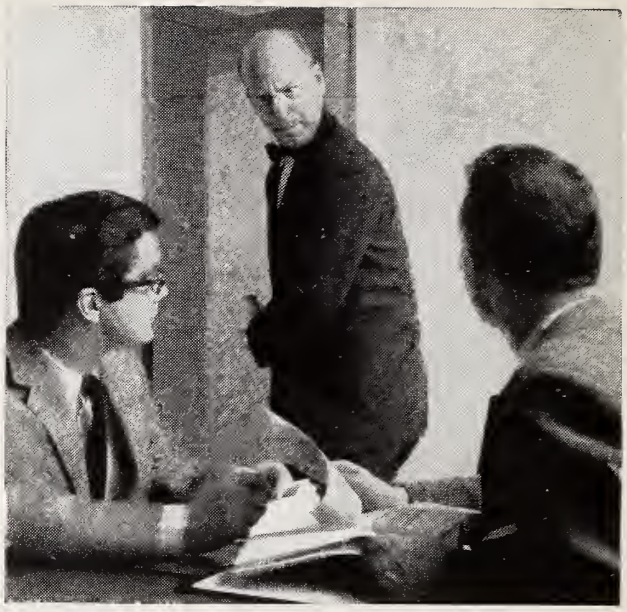

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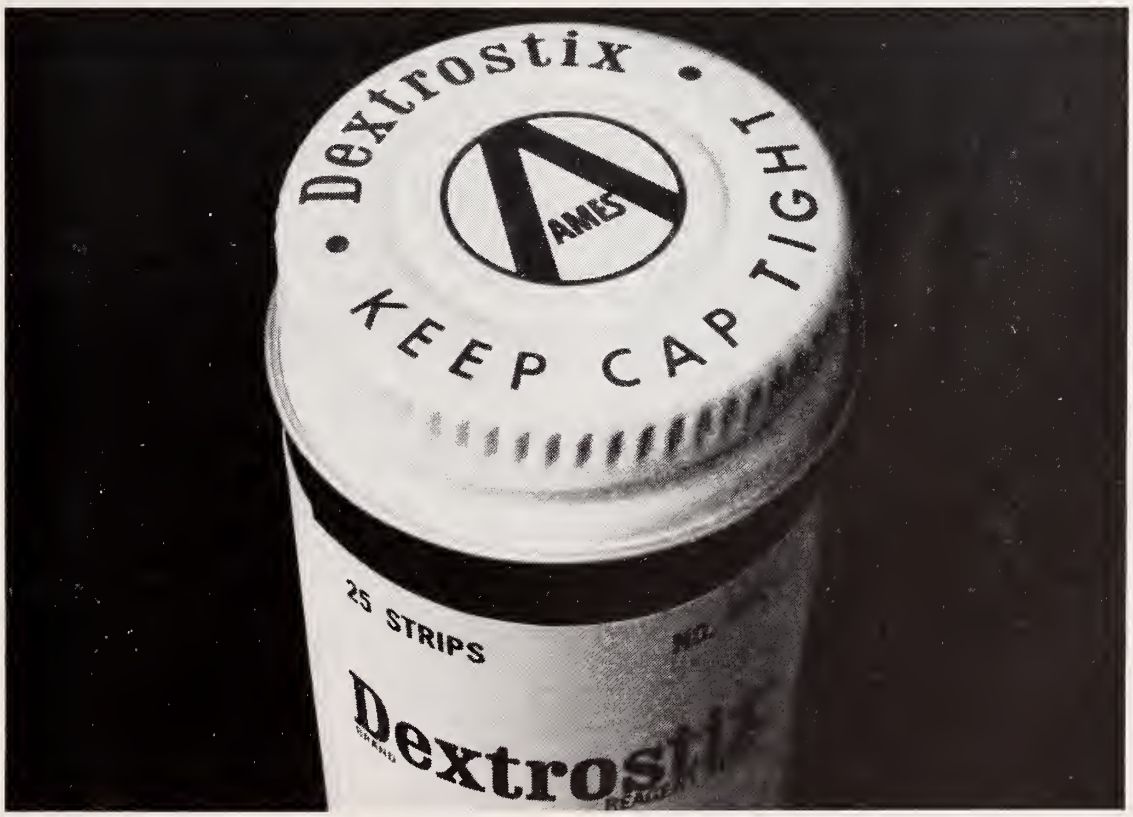

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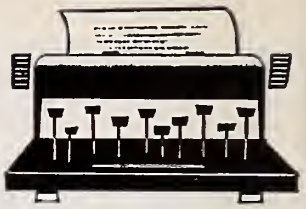
EDITORIALS



Progress in Radiology

In the last decade, there has been marked progress in applied technology in the field of radiology to the point that a well-equipped radiology department of today bears little resemblance to one of ten years ago. The most significant advance was the development of the image intensifier tube. This has revolutionized radiology by improving fluoroscopy and by making cinefluorography, TV fluoroscopy, 70 mm (or 90 mm) spot filming possible. Prior to the image intensifier, fluoroscopy was done with a conventional fluoroscope at currents generally from 3 to 10 milliamperes. Rooms had to be absolutely dark. Those working in the rooms had to accommodate for at least 20 minutes the red "goggles." These conditions did little to put a patient at ease and pylorospasm was very common. With an image intensifier, fluoroscopy is done in subdued light without prior eye accommodation and at currents usually between one and 3 milliamperes. The patients are much less tense and apprehensive and pylorospasm due to psychic causes is infrequent. The image, which is 3,000-6,000 times brighter than a conventional fluoroscope, is so superior that the relative importance of the fluoroscopic examination versus radiographs has increased. It is seldom that films reveal a lesion not seen or suspected during fluoroscopy. The sigmoid colon, previously an area poorly seen fluoroscopically, is well visualized now and the incidence of missed lesions greatly decreased. Calcium in coronary arteries is seen commonly, and even a small amount of calcium in heart valves can be detected.

The image intensifier can no longer be considered a luxury item for a busy hospital radiology department. The cost of about $6,000.00 is medically justified, but can also be justified economically by the time it saves and by making the fluoroscopist more versatile. For example, being free of red goggles allows the radiologist to read and check films, consult with the clinicians and in general be available to do anything between fluoroscopies. An emergency GI series takes no more time than a routine study since accommodation is unnecessary.

Prior to the image intensifier, cinefluorography could be done only at high radiation dose rates. This made it impractical. Now the dose rate is at acceptable levels and cinefluorography is used extensively. Its use has been most dramatic in cardiology where motion studies of contrast materials flowing through the heart have helped to appreciate the functional or physiological changes associated with heart defects and assess their importance. More recently, coronary angiography done cinefluorographically has been a major advance in the diagnosis, evaluation and treatment of coronary artery disease.

The addition of closed circuit TV systems to the image intensifier was a logical consequence. It was first a teaching "gimmick" but becomes indispensable in catheterization procedures where the operator has considerably more freedom of motion and position while manipulating a catheter. TV is especially appreciated by orthopedists and neurosurgeons who want to visualize the fluoroscopic examination during myelography. And, with TV followed magnetic video tape with the capability of instant playback such as we are accustomed to seeing while watching our favorite college or professional football team on our home television. Unfortunately, the image detail of this modality is not yet good enough to be able to dispense with film. This modality, however, is still new and there is no doubt that it will improve in the years ahead.

Another recent innovation which has become possible because of the image intensifier is the use of a 70 or 90 mm camera to "spot film" during fluoroscopy rather than spot film radiographs. There are many enthusiastic advocates of this system. Important is the fact that it takes $\frac{1}{10}$ to $\frac{1}{20}$ the radiation per exposure. This decreases significantly the radiation dose to the patient and enables the fluoroscopist to take many more spot films faster, cheaper, and with less radiation. Remote control fluoroscopy with 70 or 90 mm spot filming is growing in usage. The main

advantages are to the radiologist and his technicians since they need not be in the room with the patient, thereby reducing the occupational hazard of radiation.

How often have you heard an x-ray technologist explain the reason for a poor radiograph by "But Doctor, he weighed 280 lbs." or "He couldn't hold his breath." I have often thought how disadvantageous it is to be obese. Physical examination is hindered, radiographs are suboptimal, surgery is more difficult, and post-op complications more common. Since we apparently can't control patients' dietary habits, we must have the means of doing good radiography even on large or obese patients. This is one reason for a recent trend toward more powerful x-ray generators. A few years ago an x-ray generator of 300 MA, 125 KVP was standard. Today, generators of 1000 MA, 150 KVP with three phase current (produces almost continuous rather than pulsating x-ray beam and therefore more x-ray per unit time) are not uncommon. With this type equipment, x-ray exposures of 1/60th second or less, can stop motion and even large or obese patients can get satisfactory radiographs. With Medicare and the subsequent increase in the numbers of old and debilitated patients in all radiology departments, this type equipment will be increasingly used. Good radiography will be available to the very patients that most need it, the weak, ill, short of breath, or otherwise uncooperative patient in whom accurate and rapid diagnosis is needed.

With more powerful x-ray generators, x-ray tubes with higher capacity were needed and developed. This has been done by various means, such as coating the tungsten target with special alloys, rotating the anode (target) at high speeds to spread out the bombarding electrons, and to increase the size of the tungsten target so that it can hold more heat. However, the x-ray tube remains the limiting factor, especially when small focal spots are used to obtain finer details.

The use of small focal spots has been especially important in producing carotid angiograms of high quality so that the small vessels of the brain can be sharply delineated. Radiologic diagnosis and localization of all types of brain lesions have been markedly enhanced. To do this work radiologic equipment of high capacity is necessary and some type film changer is mandatory. Accurate diagnosis and localization of intracranial lesions cannot be done with "single shot" arteriography. Most "tumor stains" are produced during the late arterial and early capillary phase and a single film exposed too early could miss it.

A case in point is the series of films reproduced on the cover of this magazine. A definite radiologic diagnosis of meningioma was based on the ability to determine on the series of films that the tumor had a dual blood supply. The early central "stain" was being fed by a branch of the middle meningeal artery while the later, ring-like "stain" was fed by small vessels of the cerebral cortex. This is almost pathognomonic of meningioma (the only other and very rare possibility being glioblastoma invading the dura). With the diagnosis rendered by the radiologist, the neurosurgeon operated with the knowledge of the exact location and nature of the lesion he was dealing with, and this cannot help but benefit him and the patient.

All of the equipment that has been discussed is by its nature expensive. The question arises, should every community hospital be equipped to this extent? This, of course, is difficult to answer and there are no hard and fast rules. Certainly any busy department should have image intensifiers. It would seem that at least one room in most hospitals should be equipped with a high capacity generator and tube so that large or obese patients, those that have difficulty holding their breath, or otherwise remaining perfectly still, can have good radiography. Television, cine, videotape, rapid film changes, etc., are items that have specific applications and if these are present in a particular hospital, the equipment should be available.

Just as the past ten years have brought major advances, the next ten years will undoubtedly bring more, perhaps even more spectacular, for there is no doubt that space age technology is now only scratching the surface of medical application.

Parry D. Soder, M.D.
St. Joseph's Infirmary
Atlanta

Health Department Administers Title XIX

At its One Hundred and Thirteenth Annual Session, May 2, 1967, the House of Delegates of the Medical Association of Georgia adopted a resolution saying in part "that the Medical Association of Georgia adopt the position that the Title XIX Program would more properly be adminstered by the Georgia Depart-

ment of Public Health and that MAG go on record in favor of said program being administered by the Georgia Department of Public Health."

On August 2, 1967, by Executive Order, Governor Maddox transferred the administration of Title XIX from the Department of Family and Children's Services to the Georgia Department of Public Health. This program, with an annual budget of $35 million, will provide comprehensive medical care for 225,000 persons who are now classified as "categorically indigent," meaning that they receive monthly subsistence checks from the state. The program will be expanded at a future date to include the "medically indigent." This latter group will include those whose income is considered adequate for living expenses but inadequate to afford medical care. Thus the state is launching a program that will eventually provide, at government expense, a program of comprehensive care for all medically indigent people of the state.

Because of the efforts of the State Board of Health and the decision of the MAG House of Delegates, Georgia becomes one of the few states in which the Health Department will administer the program. At the time this is written, the State Plan for Implementation of Title XIX has been submitted to HEW, and it is hoped that the program can begin by October 1, 1967.

To implement Title XIX, the Health Department has added a third branch to its Division of Medical Care Administration, which currently has two major branches: Health Facilities Planning and Construction, which administers the medical and other facilities construction program, and Certification and Licensure which, in addition to consultation and licensure, certifies health facilities for Title XVIII. The third branch to be added will be known as the Branch of Medical Assistance. Dr. Venable has announced that Dr. W. S. Dorough, formerly head of the Branch of Certification and Licensure, will now become Director of the Division of Medical Care Administration. The Branch of Medical Assistance, which will be directly involved with Title XIX, will be headed by Dr. Dixon Lackey.

MAG representatives had previously worked closely with the Department of Family and Children's Services in planning the Title XIX program. It is gratifying that these same representatives have been consulted by the Health Department at all stages of planning. Those factors, such as free choice of physicians, usual and customary fees, and use of a fiscal intermediary for processing claims, which were included in the FCS plan are part of the present plan. It is hoped that this spirit of cooperation will continue, and that the physicians of Georgia will join with the Health Department in bringing quality medical care to the indigent people of our state.

Joseph S. Wilson, M.D.
490 Peachtree St.
Atlanta

Teaming Up for Better Health

THIS YEAR FOR THE FIRST TIME, MAG will actively participate in National Community Health week to be observed the week of October 15-21.

"Teaming Up For Better Health" is the recurring national theme and phases to be emphasized this year are Health Careers, Venereal Disease Education, and Immunization.

A concentrated effort is being made not only by MAG but by the Georgia Hospital Association, Fulton County Medical Society, and other groups to bring to the

attention of the laity the vastness of the "health service industry" which exists in Georgia and throughout the nation.

As a part of MAG's contribution to the project, the Annual Rural Health Conference this year will be centered around the national theme. The Conference will be held at the 4-H Center at Rock Eagle and the program is planned to inform farmers and urbanites alike on the merits of promoting good health in our neighborhoods, schools, homes, and the like. Discussions on Venereal Disease, Highway Safety, Heart, Cancer and Stroke, Nutrition, and Comprehensive Health Services are among the topics for consideration.

The Governor has proclaimed this week Community Health Week in Georgia. A massive publicity campaign has been launched including radio, TV, newspapers, billboards, exhibits, speeches, and direct mailings as a part of the overall plan to tell the story of the health industry to every citizen in Georgia.

Every county medical society can and should play a leading role in this effort. A local campaign centered around one or all three of this year's topics could prove a most effective weapon in putting your society's public relations program in action.

Should your society decide to participate actively, packets of pertinent information are available from MAG Headquarters for the asking.

Ophthalmology, Optometry and the Law

During the 1967 session of the General Assembly a bill of the most profound importance to the public, the medical profession and the State was introduced. This Bill, S. B. 9, was promoted by the optometrists as a benign piece of legislation that would simply give each individual free choice between optometrists and ophthalmologists. For reasons to be discussed, this bill went far beyond that basic premise and raised issues of utmost importance to the entire medical profession in this state. The bill stated that an optometrist should be entitled to payment or reimbursement for optometrical service in the same manner as "practitioners of other professions." It also provided that no "board, body, agency, official, or institution, whether public or private, receiving public funds, shall interfere with any individual's right to free choice of practitioner as defined in the Optometric Code."

It is obvious that this bill (and this was freely admitted by the optometrists in Legislative Committee hearings) would prevent the administrative personnel in the Department of Education, Department of Public Health, Department of Family and Children Services, as well as school nurses and vocational rehabilitation counselors from referring patients with ocular complaints directly to ophthalmologists or to family physicians.

These personnel would have been required to refer alternate patients to optometrists and ophthalmologists or else to refrain from any referral whatsoever but simply furnish a list of all optometrists and ophthalmologists in a given district. The optometrists have also strenuously objected to the fact that children who failed school vision examinations are requested to consult their "family physician." The optometrists stated that this is clear discrimination in favor of physicians over nonmedical practitioners. They therefore attempted by this bill to prevent this practice from continuing and, in effect, to bypass the family physician. In essence they were asking for recognition of equality with licensed physicians who have had special graduate training in one branch of medicine (ophthalmology), and were attempting to prevent any state employee or agency from disclosing the distinction between a full medical licensee and a limited area licensee in advising patients to seek professional health services.

Optometrists are indeed qualified by training and are licensed in the state of Georgia only to determine the refractive error of the human eye, prescribe and dispense glasses for the correction thereof, and to prescribe orthoptic exercises for certain muscle imbalances. Their limited training naturally does not qualify them to diagnose the myriad pathological conditions that occur in the eye nor are they permitted by Georgia law to treat any pathological condition, to perform surgery, or to use any local or systemic drugs.

The medical profession has always felt that there is a place for competent determination of refractive

error and it is not opposed to the prescribing and supplying of lenses by optometrists. It is true that optometrists frequently recognize certain pathological conditions and they are supposed always to refer these patients directly to ophthalmologists. As mentioned above, however, they are not trained in this field and are therefore not legally liable for any misdiagnosis or for any failure of referral. The Medical Association of Georgia is strongly opposed to any legislation which would tend to equate optometric examinations with ophthalmological (medical) examinations since this would in essence result in false security on the part of the public and a dangerous downgrading of medical care. Fortunately many of the numerous pathological conditions affecting the eye such as cataracts, glaucoma, primary and metastatic tumors, retinal detachment, strabismus, uveitis, etc., can be satisfactorily treated and blindness prevented if diagnosis is made in early stages. Early diagnosis depends primarily on the patient's access to a complete medical eye examination which always requires the use of cycloplegic drugs to dilate the pupil, a neurophthalmological evaluation of cranial nerves NII-NVII, and frequently the use of ancillary services such as laboratory aids, x-rays, diagnostic drugs, and biopsies. Glaucoma alone affects two per cent of the adult population and is as common as hypertension. It is the major cause of blindness in our state and can almost invariably be satisfactorily treated if diagnosed early. This early diagnosis is not always easy and is not based on a single tonometric determination, but requires the full skill and judgment of a well trained ophthalmologist. Even if all optometrists referred all patients whose central vision could not be corrected by lenses to ophthalmologists, most cases of glaucoma would not be picked up since central vision is not affected until late stages after the visual fields have been virtually destroyed.

All physicians are aware that there are literally hundreds of systemic disorders that not only may lead to blindness but also to generalized morbidity and even mortality. Many of these, such as diabetes, blood dyscrasias, brain tumors, multiple sclerosis, hyperthyroidism, hypertension, carotid artery insufficiency, and many others will first manifest themselves by ocular signs or symptoms. These are frequently quite subtle and usually cannot be discovered without a full medical eye examination. Optometrists are not permitted by Georgia law nor are they qualified by training to use drugs, x-rays, and special diagnostic and surgical instruments.

It is quite clear that Senate Bill 9 would have seriously hampered administration of state programs concerned with blindness and the blind citizens. These agencies would have been required to refer certain patients to optometrists and thus prevent these patients from having full medical evaluations. We must assume that this practice would result in a generalized lowering of the quality of care provided by these agencies, a great increase in the incidence of blindness, and a delay in diagnosis of numerous systemic illnesses. The increased blindness alone would cost the state millions in increased welfare payments and would result in the loss of millions of dollars in taxes and productivity from blind citizens. To show how expensive blindness is to tax payers, over one billion dollars is now being spent annually in the United States simply for the care of those patients already blind. We must remember that administrative or nursing personnel in the various state agencies have absolutely no way of determining from patients' symptoms whether they simply have a refractive error (which any qualified optometrist could satisfactorily correct) or whether their vague symptoms of visual loss could be a sign of a serious systemic illness. This bill would therefore be forcing these lay personnel into trying to make some sort of provisional diagnosis in determining to which "practitioner" the patient would be referred.

From experience gained over the years with podiatry legislation, we must assume that bills similar to Senate Bill 9 will be reintroduced in the future. Since these issues are so broad and since they affect not only all physicians but all citizens in the state of Georgia, the Medical Association of Georgia urges each and every physician to combat this legislation as strongly as possible. It is urged that each of you contact your legislators, explain to them the importance of medical eye examination, and urge them to vote against any legislation which would interfere with this.

Senate Bill 9 passed the Senate at the last session of the Legislature. Although a determined effort was made to defeat it in the Senate Health and Welfare Committee, there was simply insufficient time in which to organize the full resources of the MAG. Fortunately, time worked to our advantage in the House of Representatives. Following one of the most intense, active legislative campaigns in many years, the bill was defeated in the House State of Republic Committee on the strength of one vote (8 to 7). Having lost by a single vote in Committee, the optometrists are virtually certain to make another effort at the forthcoming 1968 session of the General Assembly.

The Medical Association of Georgia's view is well summarized by resolution of the House of Delegates which was passed unanimously in May

of 1967. That resolution stated in part: "Now therefore be it resolved, that the Medical Association of Georgia considers an eye examination by a licensed physician to be an integral and important part of any complete and comprehensive medical examination; and that the Association does not consider an optometric examination equivalent in any way to a complete and comprehensive medical eye examination. The Medical Association of Georgia is unalterably opposed to any legislation which seeks to have eye examination by non-medical practitioners recognized as equivalent in any way to examinations made by licensed physicians."

Harrison L. Rogers, Jr., M.D.
Chairman, MAG Committee
on State Legislation

PROFESSIONAL COURTESY

Adopted by Judicial Council of AMA, June 17, 1967

The custom of professional courtesy embodies the ancient tradition of fraternalism among physicians in the art which they share, and their mutual concern to apply their learning for the benefit of one another as well as their patients. The Judicial Council reaffirms and endorses the principle of professional courtesy as a noble tradition that is adaptable to the changing scene of medical practice.

Professional courtesy is not a rule of conduct that is to be enforced under threat of penalty of any kind. It is the individual responsibility of the physician to determine for himself and within his own conscience to whom and the extent to which he shall allow a discount from his usual and customary fees for the professional services he renders, and to whom he shall render such services without charge as professional courtesy.

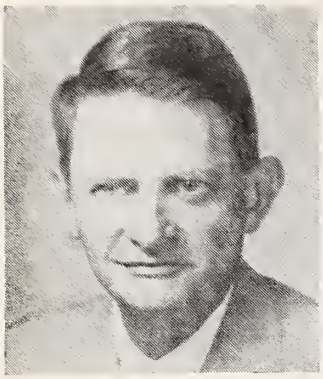
The following guidelines are offered as suggestions to aid physicians in resolving questions related to professional courtesy.

1. Where professional courtesy is offered by a physician but the recipient of services insists upon payment, the physician need not be embarrassed to accept a fee for his services.
2. Professional courtesy is a tradition that applies solely to the relationship that exists among physicians. If a physician or his dependents have insurance providing benefits for medical or surgical care, a physician who renders such service may accept the insurance benefits without violating the traditional ethical practice of physicians caring for the medical needs of colleagues and their dependents without charge.
3. In the situation where a physician is called upon to render services to other physicians or their immediate families with such frequency as to involve a significant proportion of his professional time, or in cases of long-term extended treatment, fees may be charged on an adjusted basis so as not to impose an unreasonable burden upon the physician rendering services.
4. Professional courtesy should always be extended without qualification to the physician in financial hardship, and members of his immediate family who are dependent upon him.

PLANNED EXPANSION OF MEDICAL SCHOOL ENROLLMENT

In 1959 the Surgeon General's Consultant Group on Medical Education (in its report *Physicians for a Growing America*) recommended that a minimal national medical manpower objective should be the graduation of 11,000 physicians a year by 1975 which would require the admission of at least 12,000 entering medical students by 1971. Legislation to provide matching grants for the construction of health education facilities was passed in 1963, and funds for its implementation were appropriated in 1964. In 1965 the Health Professions Educational Assistance Act was amended to provide "basic" and "special" improvement grants for the support of the operation of health professions schools. Funds to implement 70 per cent of the "basic" improvement grants were appropriated for fiscal year 1967.

Responsible institutions have announced plans for the development of 15 new medical schools. These new medical schools plan to admit 930 entering medical students by 1971-72. Established medical schools have firm plans for expanding enrollments by a total of 1,261 entering medical students by 1971-72. The total expected enrollment of entering medical students of 10,950 by 1971 falls short by 1,050 of the 12,000 recommended in 1959.



PHYSICIAN-MEDICAL SOCIETY RELATIONS

YOUR OFFICERS, BOTH COUNTY AND STATE, have from time to time had complaints and occasionally compliments concerning the activities of organized medicine. These comments are scattered and difficult to evaluate in relation to the whole. However, the difficulties of proper evaluation in no way minimize the importance of the County and State Medical Societies' recognizing the needs and attitudes of their members.

The Illinois Medical Society has recently completed a survey to determine the attitude of its physician members toward their state society. This survey was done by an outside organization, The Opinion Research Corp., and was divided into two parts. Part I consisted of 200 personal interviews lasting from one to three hours. Part II was a letter survey to 2,000 members. Over 1,000 members responded.

The over-all results indicated that only 53 per cent considered their state membership valuable. Forty-three per cent believed that it had no value to them. Four per cent had no opinion.

More GP's than specialists regarded their memberships as valuable. It was also interesting to note that 62 per cent of those with incomes of less than $20,000 considered their membership valuable.

The same situation as regards metropolitan and non-metropolitan exists in Illinois as apparently exists in Georgia. Sixty per cent of the non-metropolitan regarded their memberships as valuable as compared to 50 per cent of the metropolitan physicians.

When the 43 per cent who felt that these memberships were of no value to them were questioned, the following reasons were given most frequently:

1. The State Society had nothing to offer them; 2. Ignored them when first in practice; 3. Failed to advise them on the business side of the practice of medicine; 4. Were not aware of the services offered by the Medical Association.

In summary, three out of four physicians do not use the services of the Illinois Medical Society, but 70 per cent of those who do feel that their membership is valuable.

To paraphrase a famous statement, "Ask not what your Medical Society can do for you, but what you can do for your Medical Society and the future of the practice of medicine."

John T. Mauldin, M.D.
President, Medical Association of Georgia

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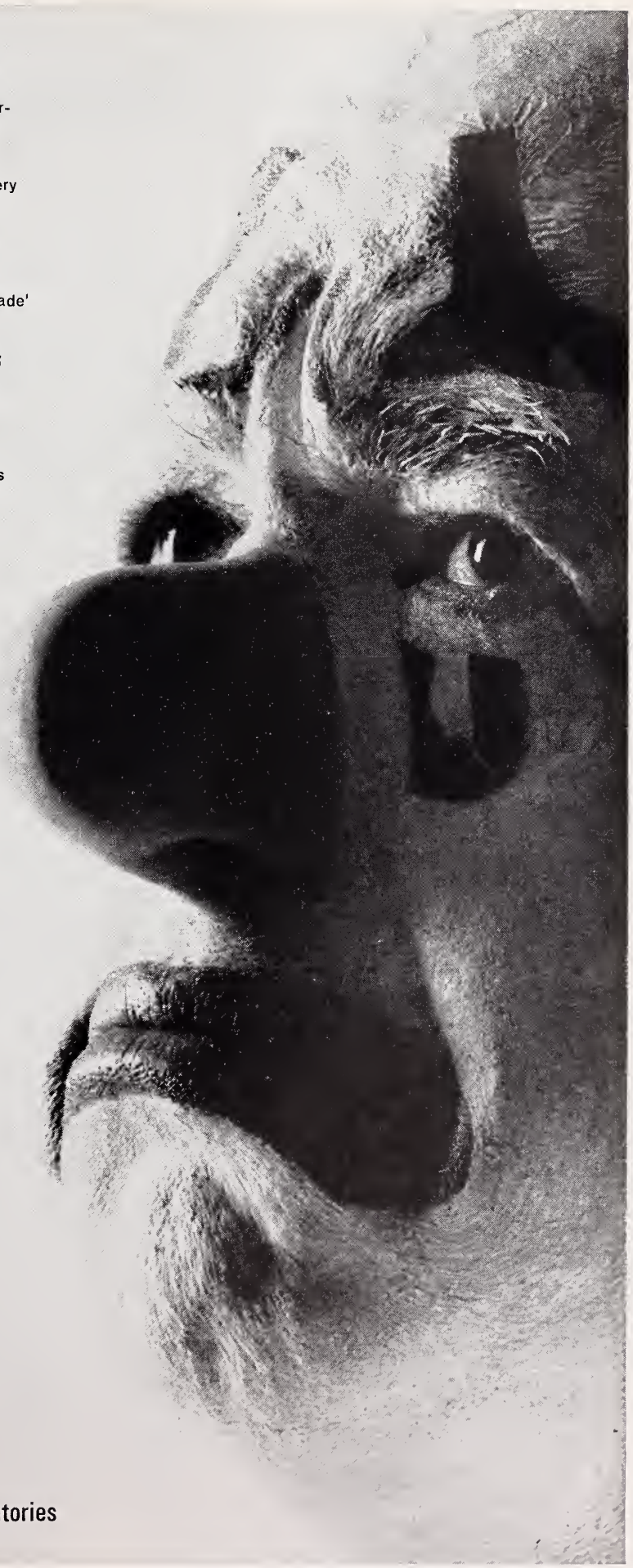

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HEART PAGE

ARTERIAL MURMURS

Glen E. Garrison, M.D., *Augusta*

AUSCULTATION OVER THE MAJOR ARTERIES is an important part of the physical examination. Normally, no murmur is audible over an artery. During auscultation the bell of the stethoscope should be placed lightly in contact with the skin over the artery since compression of an artery with the stethoscope may produce a systolic murmur in a normal subject. If increased cardiac output (thyrotoxicosis, anemia, etc.) and murmurs originating in the heart are excluded, a systolic murmur over an artery indicates an abnormality of its lumen. This may be the result of external compression of the artery or may be due to an irregularity of its intima, which in the majority of instances is due to atherosclerosis. Many middle-aged and elderly people have such murmurs over multiple arteries indicating widespread atherosclerosis. An audible systolic murmur over an artery is not always indicative of clinically significant stenosis. However, a similar systolic murmur may be produced by a clinically significant stenosis in the artery. In addition, when a systolic murmur over a large artery to an extremity extends without interruption into diastole after exercise of that extremity, it indicates prominent arterial stenosis with inadequate collateral blood flow around the stenosis during the time that the diastolic component of the murmur is audible. These murmurs have their greatest intensity in the area of the arterial stenosis. The occurrence of systolic arterial bruits extending into diastole while the patient remains in the resting state is rare; but when present, it indicates severe arterial stenosis with prominently inadequate collateral circulation provided that patent ductus arteriosus, arteriovenous fistula, venous hum, and vascular tumors have been excluded. When severe arterial stenosis is present, it usually is in the systemic arterial tree but occasionally occurs as a congenital anomaly in the pulmonary arteries. If an artery becomes completely occluded, no murmur is audible.

The production of the systolic murmur extending into diastole after exercise of an extremity supplied by a stenotic artery is based on several factors. Proximal to the stenosis, exercise increases the systolic blood pressure and usually produces little change in the diastolic blood pressure. On the other hand, exercise that includes an extremity supplied by a significantly stenotic artery produces a decrease in the diastolic pressure distal to the stenosis. Undoubtedly, the principal mechanisms by which exercise lowers intra-arterial pressure distal to the stenosis are the arterial dilation and the increased blood flow produced in skeletal muscle by exercise. The development of a pressure gradient across the stenotic area during diastole produces forward flow of blood across the narrowed area and an associated bruit as long as the pressure gradient persists. The systolic component is always louder than the diastolic part because of the larger pressure gradient across the stenosis during systole.

Auscultation over the major arteries is a basic part of the physical examination. When arterial insufficiency is suspected in an extremity, auscultation should be performed over its major artery both before and after the extremity in question has been exercised.

Medical College of Georgia

Prepared at the request of the Committee on Professional Education of the Georgia Heart Association.

ABORTION LAWS

John L. Moore, Jr., *Atlanta**

During the last year Colorado, North Carolina, and California passed statutes modifying earlier abortion laws. Those three states basically followed the recommendations of the American Law Institute with some modifications. The American Law Institute's proposed draft legalizes abortions if the pregnant mother's mental or physical health is endangered by a continuance of the pregnancy, if there exists a substantial risk of deformity of the child, or if the pregnancy resulted from forcible rape or incest.

Recent Comments

Recently the Rev. Robert F. Drinan, a Roman Catholic Jesuit priest as well as a lawyer and Dean of the Boston College Law School, suggested another alternative. He stated that it might be preferable to repeal all abortion laws regulating interruption of pregnancy in the first 26 weeks thereof. Presumably, after that time, the law would regulate abortions to allow them only if necessary to preserve the life or health of the mother.

Father Drinan criticizes present and proposed approaches under the American Law Institute's Model Penal Code on the grounds that the law deals with the question of choosing one life over that of another. He argues that this amounts to "fetal euthanasia." As a result, he thinks it better for the law not to regulate the matter.

Comment

Whatever one thinks of Father Drinan's theological reasoning, his comment provokes considerable thought.

The writer of this article has discussed the troublesome question of abortion laws with many physicians. It is the writer's conclusion that practicing physicians are rather restrictive in their thinking as to allowable abortions. Admittedly, the taking off of all regulation in the first 26 weeks of pregnancy might well lead to the use of abortion as a method of birth control. But there is a good argument that this issue is not one for law but for sound medical practice, a matter to be decided among the patient, the patient's husband, and their physician or physicians. Obviously, psychiatric questions also arise and consultations might be necessary.

Father Drinan emphasizes that his proposal was coupled with the challenge to find a way "to turn an unwanted pregnancy into a wanted one." If the legal regulation of abortions were lifted there certainly should be a public or private program to work with all mothers requesting abortion for socio-economic reasons.

Certainly the removal of legal prohibition from the performance of abortions should reduce drastically the number of abortions performed by illegal practitioners at great risk of life to the pregnant women. It would seem wise to provide that the law would not regulate abortions performed in the first 26 weeks of pregnancy but only if the abortion is performed by a licensed medical doctor in an appropriate hospital or other medical facility.

The removal of legal regulation of abortions would impose a very substantial additional function on medical societies. Undoubtedly, standards would be developed as to proper indications for abortions necessary for medical reasons, psychiatric reasons, as socio-economic reasons. It is suggested that any wide departure from the standards developed in practice by reputable licensed physicians would expose the physician performing the non-conforming abortion to considerable risk of damages in malpractice suits. It is probable that this civil liability would impose enough self-regulation to remove any likelihood of a great number of non-conforming abortions.

Suite 1220
C & S National Bank Building

* Prepared at the request of The Medical Association of Georgia. Mr. Moore is a member of the firm of Alston, Miller & Gaines, General Counsel to The Medical Association of Georgia.

MATERNAL AND INFANT WELFARE COMMITTEE

The following two cases are presented to inform the physician of the possible danger of prescribing thiazide drugs for pregnant patients and of the necessity of cautioning pregnant patients about improper positioning of seat belts in automobiles.

Case #5-66—Maternal Death Associated With Aplastic Anemia

An eighteen-year-old white gravida 1, para 0, was first seen December 2, 1964 for routine physical examination. History was not remarkable. Significant findings were a 3 Cm left adnexal mass presumed to be an ovarian cyst and mild anemia (HB 10.5 gms). She was given an oral contraceptive at her request (Norinyl).

On June 22, 1965 the patient returned for prenatal care, having discontinued contraception voluntarily. The LMP was April 18, 1965 and EDC January 25, 1966. Significant findings were an early intrauterine pregnancy and normocytic iron deficiency anemia (Hb 9.5 grams). Her pregnancy proceeded uneventfully until December 28, 1965 when 1+ albuminuria, 1+ edema, and a three pound weight gain in one week were noted. During this time her hemoglobin had varied from 9.5 gms to 11.5 gms. She received ferrous sulfate 1.0 gm daily.

She was treated with trichlormethazide (Nequa) 2 mgm daily. On January 4, 1966 persistent edema and albuminuria were noted and her medication was changed to benzthiazide (exna) 50 mgm daily and continued until hospital admission January 17, 1966.

On January 11 she complained of malaise and chest congestion. Physical examination was unchanged and she was thought to have Coryza. On January 15, 1966 she reported by phone that she was having diarrhea. This was treated symptomatically. Retrospectively, this probably represented rupture of membranes. On January 17, 1966 the patient was admitted to the hospital because of persistent "diarrhea," vomiting, and abdominal "cramps." Irregular uterine contractions with no cervical dilatation were found to be present. Amniotic fluid was leaking. Extreme pallor was noted. Laboratory findings shortly after admission revealed: Hemoglobin 2.5 gms%; hematocrit 7%; WBC 8,000; segs 60%; stabs 6; lymphs 27; monos 7. Reticulocytes 0.5% platelets 18,000. Urinalysis: Sp. Gr. 1.009; albumin 3+; WBC 6-8 PHF; RBC 2-4 PHF and a few hyaline casts. Blood chemistry abnormalities were: CO_2 combining power 5 mEq and BUN 64 mgms%. Bone marrow studies revealed an almost complete lack of erythropoiesis.

She was treated with intravenous glucose and KCI, followed by whole blood. After receiving 700 cc of blood, she developed pulmonary edema and cardiac decompensation. At this time full dilatation was noted but FHT were inaudible. She was delivered easily by forceps rotation from an occiput posterior position using only pudendal block anesthesia and median episiotomy. The patient remained in a sitting position receiving continuous oxygen. The infant was a stillborn female weighing 5 lbs. 6 oz. with no evidence of maceration. The patient seemed to improve remarkably following delivery. However, her condition soon deteriorated

again and in spite of the usual heroic measures she expired approximately twenty-four hours after admission.

Postmortem examination revealed pulmonary edema and bone marrow study confirmed marked decrease in the number of normoblasts with maturation arrest of those noted. The granulocytic series appear within normal limits. The megakaryocytes are markedly reduced in number. This appears to be a selective depression of the normoblastic series resulting in a severe anemia.

Cause of death was felt to be primarily due to Aplastic Anemia. This was probably a blood dyscrasia due to thiazide diuretics.

Personal correspondence with the head of the department of Medical Services of the manufacturer of Exna, acknowledged that other blood dyscrasias have been reported in connection with the thiazide diuretics. He states, ". . . a cause-effect relationship . . . can neither be definitely established nor excluded. . . . It is our feeling that trichlormethiazide and/or benzthiazide would be the probable agent or agents which produced this blood dyscrasia."

A case of maternal death at time of parturition caused primarily by a blood dyscrasia is presented. The probable agents were thiazide drugs. The widespread use of these drugs warrants publication of their possible potential for danger in the occasional case.

Charles E. Sax, M.D., F.A.C.O.G., Savannah

Case #75-63—Maternal Death Associated With Seat Belt Injury

A nineteen-year-old white housewife, para 0, gravida 1, in advanced pregnancy (weeks of gestation not stated) was injured in an automobile wreck. She was wearing her seat belt. Whether she was a driver or a passenger was not reported. "She was brought to the hospital in shock, with severe facial lacerations and mulitple contusions and abrasions. X-ray showed the baby partially out of the uterus, which was gradually enlarging."

After instituting attempts to combat shock (plasma, blood, fluids, amounts not detailed), a rapid laparotomy was performed, encountering "an abdomen filled with blood." The infant was found completely decapitated, "probably by the seat belt" according to the surgeon. Exploration also disclosed the uterus to have been completely avulsed above the insertions of the utero-sacral ligaments. Cardiac arrest occurred and, despite all supportive measures plus heroic resuscitative procedures including open heart massage, the patient expired.

The number of others involved and the extent of their injuries, if any, was not reported. There have been numerous occurrences in this country, from time to time, of dangerous injury or death of individuals wearing their seat belts, in which the safety measure was obviously a factor of direct injury. Of course the possibility exists, indeed the likelihood, of improper positioning and/or improper securing of the seat belt, and in the report on this case that point is not mentioned. In many instances pregnancy and/or a full bladder existed.

So far as the committee can learn, this is the first and only case of a maternal death in Georgia resulting from this unfortunate and dangerous combination.

Hugh J. Bickerstaff, M.D., F.A.C.O.G., Columbus

DEATHS

Robert T. Carney

Robert T. Carney, an East Point anesthesiologist, died July 17, 1967, at the age of 41.

Dr. Carney was a graduate of the Bowman Gray School of Medicine, Wake Forest College, Winston-Salem, North Carolina. He served his rotating internship at Akron General Hospital, Akron, Ohio, and his residency at Huron Road Hospital, East Cleveland, Ohio.

He practiced in St. Petersburg, Florida, and came to Atlanta via the Student Health Clinic at the University of Florida at Gainesville, Florida.

Dr. Carney was engaged in the private practice of Anesthesiology in East Point in association with Drs. Robert F. Finegan, William F. Byrnes, and Francisco M. deArmas. He was a member of the Fulton County Medical Society, the Medical Association of Georgia, the American Medical Association, the Greater Atlanta Society of Anesthesiologists, the Georgia Society of Anesthesiologists, and the American Society of Anesthesiologists.

Claudius A. Clements

Claudius A. Clements, 58, a native of Walker County and a resident of Trion, died July 31, 1967, of a heart attack.

Dr. Clements was a graduate of the Medical College of Georgia. He had practiced in the Soddy-Daisy area of Tennessee prior to locating in Trion ten years ago. He was on the staffs of Erlanger Hospital in Chattanooga, Hutcheson Memorial at Fort Oglethorpe, Chattanooga County Hospital in Summerville and Trion Community Hospital.

He was a member of the American Medical Association, Chattanooga-Hamilton County Medical Society and the Medical Association of Georgia. Dr. Clements was also a member of First Baptist Church of Trion and the Summerville-Trion Rotary Club.

Survivors include three brothers, Harold and Russell Clements of Lafayette, and Charles Reed Clements of Cleveland, Ohio.

Ward Beecher DuVall

Ward Beecher DuVall, 77, a general practitioner for more than 50 years in Atlanta, died July 27, 1967, in Atlanta.

Dr. DuVall was a 1913 honor graduate of the Medical College of Georgia. He interned at Bellevue Hospital in New York before starting his practice in Atlanta. He was a staff member of Crawford W. Long Memorial Hospital and an honorary staff member of Georgia Baptist Hospital. Dr. DuVall was a fellow of the Southeastern Surgical Congress and an associate fellow of the American Proctologic Society. He was a member of the Southeastern and Piedmont proctologic societies and the Fifth District, Southern and Fulton County medical societies as well as the Medical Association of Georgia.

Survivors include his wife, the former Gertrude Lockhart; a son, Ward B. DuVall, Jr., of Atlanta; a daughter, Mrs. J. J. Beck of Albany; and two brothers, W. O. DuVall of Atlanta and H. R. DuVall of Edison.

George Henry Faggart

George Henry Faggart, 76, of Savannah, died August 18, 1967, at Candler General Hospital after a long illness. Dr. Faggart was an eye, ear, nose and throat specialist who had practiced in Savannah for nearly half a century.

A graduate of Jefferson Medical College in Philadelphia, he served as a captain in the Army during World War I and then entered practice in Savannah. He was a past president of the Georgia Medical Society and a member of the Lutheran Church of the Ascension. He worked for many years with the Georgia Lighthouse for the Blind and St. Mary's Home for Children. Last year he was honored by the Georgia Medical Society, the Jefferson Medical College and Solomon's Lodge No. 1 F&AM for his 50 years of service.

Survivors include his wife, Mrs. Ollie Foil Faggart, and a daughter, Mrs. Ascher Ruch, Jr., of Dayton, Ohio.

Odis G. Glover

Odis G. Glover, 49, of East Point, died August 11, 1967.

Dr. Glover, a native of Canton, was a graduate of the Medical College of Georgia. He began his practice in Atlanta in 1948. He was a member of the Fulton County Medical Society, the Medical Association of Georgia, and the American College of Obstetricians and Gynecologists, and was a staff member of Crawford W. Long Memorial Hospital.

Survivors include his wife, the former Ruth Douglas; three sons, John D., Scott W. and Odis G. Glover, III, all of St. Petersburg, Florida; three daughters, Miss Judith Glover, Atlanta, and Miss Lisa Glover and Mrs. Susan Shaffer of St. Petersburg; his mother, Mrs. Elnora Glover of Atlanta; and a sister, Mrs. D. T. Osgood of Jacksonville, Florida.

Walter Eugene Mobley, Sr.

Walter Eugene Mobley, Sr., 75, a retired Macon physician, died August 24, 1967, in Macon.

Dr. Mobley was a native of Social Circle and received his medical degree from the Medical College of Georgia. He practiced general medicine and surgery from 1920 until his retirement in 1939 due to ill health.

Dr. Mobley was a member of the Bibb County Medical Society, the Medical Association of Georgia, and the American Medical Association. He was also a charter member of American Legion Post 3 and a former member of the Exchange Club.

Survivors include one son, Walter E. Mobley, Jr., of Macon; three sisters, Mrs. J. F. Wiley of Social Circle; Miss Maude Mobley of Social Circle and Mrs. J. Walker Combs of Washington, D.C.; and one brother, Ralph D. Mobley of Atlanta.

Alexander G. Pinkston, Jr.

Alexander G. Pinkston, Jr., 49, of Glennville, died August 17, 1967, in the Memorial Medical Center in Savannah.

A native of Long County, Dr. Pinkston was a practicing physician in Glennville and the surrounding communities since 1946 after his internship at Augusta Medical Center where he completed his medical training. He was a veteran of World War II.

Dr. Pinkston was a member of the Southeast Georgia Medical Society and the Medical Association of Georgia. He was also a Mason and Shriner and a member of the Glennville First Baptist Church.

He is survived by two sons, Alexander G. Pinkston, III, and Christopher E. Pinkston of Glennville; his parents, Mr. and Mrs. A. G. Pinkston, Sr., of Ludowici; a brother, Frank C. Pinkston of Macon and a sister, Mrs. S. E. Jones, Jr., of Louisville, Ga.

Davis S. Reese

Davis S. Reese, 86, of Carrollton, died August 9, 1967, after a short illness.

Dr. Reese was born in Coweta County and graduated from Atlanta School of Medicine, now Emory University, in 1906. He interned in New York and did research in Chicago before setting up his practice in Carrollton in 1911. He then did postgraduate work at Columbia University and George Washington University. He practiced in Carrollton until 1937, then enrolled in the Chicago Eye, Ear and Nose College and limited his practice to these areas when he returned in 1938.

Dr. Reese conceived the idea of building a chapel for inmates at the Carroll County Work Camp and saw this chapel dedicated in May. He was Carrollton's Man of the Year in 1966. He was interested in youth, particularly the Boy Scouts, and received scouting's highest award. He was a member of the First Baptist Church and had been chairman of the board of deacons. He was also past president of the Carroll County American Red Cross Chapter and a member of the Medical Association of Georgia.

Survivors include his wife, the former Kathryn Roquemore; a son, Davis Roquemore Reese of Philadelphia; and a daughter, Mrs. William Devane of Kitzengin, Germany.

Clanton Carlton Shipp

Clanton Carlton Shipp, 47, prominent Thomasville eye, ear, nose and throat specialist died July 31, 1967.

A native of Columbia, South Carolina, Dr. Shipp had practiced in Thomasville since 1953 when he joined the Archbold Memorial Hospital staff. He received his medical degree from Emory University in 1943 and served as an Army doctor during World War II.

Dr. Shipp took a specialty course in ophthalmology in 1947 and later a two-year residency at Memphis Eye, Ear, Nose and Throat Hospital in Memphis, Tennessee, before coming to Thomasville.

He was a member of the Thomas County Medical Society, the Medical Association of Georgia, the American Medical Association, the Association of Ophthalmology and St. Thomas Episcopal Church.

Surviving are his wife, Mrs. Sara James Shipp; a son, C. Carlton Shipp III; two daughters, Miss Mary Clair Shipp and Miss Sandra Elaine Shipp, all of Thomasville; his parents, Mr. and Mrs. Clanton C. Shipp, Sr., and a sister, Mrs. Baron Roberts, all of Atlanta.

SOCIETIES

The **Tenth District Medical Society** heard Dr. Charles Hatcher of the Emory Clinic in Atlanta speak on "Acquired Valvular Heart Disease" at the summer meeting held August 17 at the Washington-Wilkes County Country Club.

PERSONALS

Second District

W. Frank McKemie of Albany has been appointed to the State Board of Health by Governor Lester Maddox. Dr. McKemie, a member of the medical and surgical staff of Phoebe Putney Hospital, is a past president of the Georgia Academy of General Practice.

Fourth District

Tom Lipscomb has been named director of the Griffin health department. He will coordinate the public health programs in Spalding, Clayton, Henry Butts and Fayette counties.

An article in the *Jackson Progress-Argus* credited **Jack R. Newman** of Jackson with saving the life of a young girl critically injured in an automobile accident near Macon on August 2. The girl suffered from a ruptured trachea and Dr. Newman removed the blood from her throat and administered mouth to mouth resuscitation twice while accompanying her to the hospital.

F. Donald Bass and **James J. Thomasson, Jr.**, of Newnan, have joined the surgical staff of Papp Clinic, Professional Associates in Newnan. Dr. Bass has been engaged in the practice of general surgery for the past year and Dr. Thomasson has just completed his tour of duty with the United States Navy.

Fifth District

Robert L. Brown of Atlanta spoke to the 21st Annual Meeting of the Georgia Division, American Cancer Society, on August 23. Dr. Brown was reelected chairman of the board and **John P. Wilson** of Atlanta was reelected vice president of the division.

The superintendent of the Atlanta Regional Hospital scheduled to open in 1969 will be the nationally known psychiatrist **Peter A. Peffer.** A Diplomate of the American Board of Psychiatry and Neurology, a Certified

Mental Hospital Administrator and a Fellow of the American Psychiatric Association, Dr. Peffer has served 28 years with the Veterans Administration.

Bryan W. Robinson, assistant professor of medicine (neurology) and associate professor of physical medicine (research director) at Emory University School of Medicine, will direct a study of the control and analysis of primate behavior by brain telestimulation and telemetry under a grant from the National Aeronautics and Space Administration.

Ralph A. Tillman of Atlanta was recently awarded a Certificate of Appreciation by the State Medical Education Board of Georgia. Dr. Tillman was also recently certified by the American Board of Obstetrics and Gynecology.

Sidney Olansky of the Emory University Clinic served as one of the Presidents in Theme 5, "Current Problems in Syphilis," at the XIII Internationaler Kongress für Dermatologie held in Munich, Germany, July 30 to August 5.

Dr. and Mrs. Martin I. Goldstein of Atlanta entertained on August 12 at a "Welcome to Georgia" party honoring **Dr. and Mrs. J. Graham Smith** and **Dr. and Mrs. Robert Crounse.** Dr. Smith is the new chairman of the new Department of Dermatology at the Medical College of Georgia in Augusta and Dr. Crounse is associate professor in the new department.

Herbert Karp of Atlanta was installed as the new president of the Atlanta Zionist District August 24 at the Jewish Community Center. **Edward Reisman** of Atlanta, a delegate to the National Zionist Organization Jubilee Convention in Jerusalem during the Middle East war, gave a talk on his experiences in Israel during the conflict.

Warren S. Dorough, an Atlanta surgeon, has been appointed director of the Division of Medical Care Administration, modified to include the Medical Assistance Branch which will administer the new Medicaid program and the Crippled Children's Service. **Dixon A. Lackey** of Atlanta has been named medical director of the Medical Assistance Branch.

Seventh District

The American Academy of General Practice has reelected **Robert L. Raitz** of Dalton to active membership.

William P. Smith, Jr. has returned to Bowdon from Atlanta and opened a clinic where he is engaged in general practice and surgery. He is following in the footsteps of his late father, **William P. Smith, Sr.,** in Bowdon. Dr. Smith is also Mayor of Bowdon.

Eighth District

McKee Hargrett of Jesup was elected to the seat from Wayne County in the Georgia House of Representatives left vacant by Rep. Glenn Thomas, Jr.

Charles H. Durden has begun the practice of medicine in Fitzgerald. Until his own office is ready, he will be working with **Ralph Roberts.**

Ninth District

Oliver Pittman of Commerce has been elected to active membership in the American Academy of General Practice.

Tenth District

The Garden City Business and Professional Women's Club of Augusta heard **Augustine S. Carswell** speak in August about the proposed Augusta Doctors Medical Center on which construction is expected to begin next year. **J. Dewey Gray,** Director of the Augusta Doctors Medical Center, Inc., spoke to the Augusta Rotary Club August 16 on the new facility.

Herman Peskin, an Augusta internist, spoke to the Diabetes Association of Augusta on August 20.

Athens physician, **Dillard Lafayette Nix,** has been included in Who's Who in the South and Southwest for the year 1966-67.

ALBANY-THOMASVILLE MEDICAL SEMINAR SCHEDULED

A two-day scientific session has been scheduled for the Albany-Thomasville area for October 26-27 with an agenda calling for four scientific speakers plus a number of social activities.

Scheduled to deliver scientific papers are Dr. Herbert Karp, Professor of Medicine and Head of the Department of Neurology at Emory, who will speak on "Cerebral Vascular Diseases Today" and "Non-Metastatic Neurologic Manifestations of Malignancies."

Dr. Albert Messer, Professor of Psychiatry at Emory, will speak on "Mental Health and The Family."

Dr. H. Oliver Williamson, Professor of Obstetrics and Gynecology, University of South Carolina, will speak on "Recent Advances in Contraception" and "Disfunctional Uterine Bleeding."

Closing out the scientific part of the program will be Dr. Michael Widener, Professor of Surgery, University of South Carolina, who will speak on "Peritonitis" and "Shock."

Social and recreational activities include a dinner-dance on Thursday night at the South Dougherty Community Center, Albany; a Skeet Shooting Tournament at Flint Skeet and Trap Club, Albany; and golf at Doublegate Country Club in Albany.

All scientific sessions will be held in Albany at the Shrine Temple.

HIGHLIGHTS OF THE ACTIONS OF THE MAG EXECUTIVE COMMITTEE OF COUNCIL MEETING, AUGUST 27, 1967—ATLANTA

This summary is being published so that the MAG membership may be advised in brief of the actions of the Association's Council and Executive Committee. It covers only major actions and is not intended as a detailed report. Full minutes of these meetings are available upon any member's request to the MAG Headquarters Office.

MAG-Military Medicare Contract with the Department of Defense was extended until October 31, 1967 pending a decision by the Defense Department on the MAG appeal to renew the MAG contract and rescind the Department directive terminating all contracts with state medical associations. A final decision by the Department should be forthcoming within two weeks. MAG and seven other state medical associations are affected by this directive as fiscal agents in reimbursing physicians for health care services rendered to dependents of Armed Forces personnel and others. It was agreed that MAG should continue its activity to retain the contract.

Georgia Regional Medical Program for Heart Disease, Cancer and Stroke and Related Diseases progress report was given by GRMP Director Dr. Gordon Barrow. He stated that the "disease oriented" task force committees were meeting, that the indirect costs for MAG "overhead" connected with the Program had been negotiated, and that an additional person to function as a "communications specialist" would be added to the GRMP staff as approved by Executive Committee. Executive Committee authorized an additional office space for the new employee.

Title 19 administration by the State Department of Health was discussed and Dr. John Mauldin, MAG President, and Dr. Joseph Wilson, MAG Ad Hoc Title 19 Study Committee Chairman, were appointed by Executive Committee to a Health Department Advisory Committee on Title 19 as representatives of MAG. Dr. Luten Teate, Pediatric Representative on the MAG Medical Review and Negotiating Committee, will also be on this Advisory Committee representing the Georgia Chapter, American Academy of Pediatrics. A letter to the State Board of Health Chairman, citing MAG health care objectives and policies for Title 19, was recommended by Executive Committee. Also noted was a letter from the Department of Family and Children Services terminating the MAG-FACS Contract Agreement on Medical Care for Adult Programs' Recipients effective October 1, 1967 when the Health Department implements Title 19. Since the responsibility for the administration of Title 19 has been transferred to the Department of Health, the contract services performed by MAG will no longer be under the jurisdiction of Family and Children Services.

MAG Invitation for 1972 AMA Clinical Convention in Atlanta will be formally presented by Dr. J. W. Chambers, Chairman of the Georgia Delegation to AMA, at the September 22, 1967 AMA Board of Trustees meeting, Chicago. Final action on this invitation pending the AMA Board of Trustees recommendation will be taken by the AMA House of Delegates at their November 26-29, 1967 meeting in Houston, Texas.

MAG Committee Appointments and Nominations were made for the Chairmanship of the MAG Medical Ethics Committee; an MAG Representative from the 9th District to serve on the Advisory Group of the Georgia Regional Medical Program; an MAG Representative to serve on the Advisory Committee to the Georgia State Nurses Association; nominations for MAG representation of the Health Department State Hospital Advisory Council for Construction, Licensure and Indigent Care; and nominations for MAG representatives to serve on the Medical Board of Workmen's Compensation.

Progress Reports were received with commendation from Dr. John Godwin, Chairman of MAG Paramedical Study Committee; Dr. Fleming Jolley, Chairman of MAG Traffic Safety Committee; and Dr. J. Frank Walker, Chairman of MAG Legislative Committee.

SMITH KLINE & FRENCH OFFERS NEW CATALOG OF SERVICES

Smith Kline & French Laboratories has just released its *Catalog of Services* for 1967-68. The new edition offers 36 pages of SK&F services available to physicians without charge.

Included in the illustrated catalog are medical films, booklets, periodicals, medical color television, Speakers Bureau, and the "Code 4" cardiopulmonary resuscitation training program.

New to this year's catalog is the film, "Reinforcement Therapy," which discusses the application of learning theory to the treatment of emotional disturbance. Also included for the first time are: *Medical Assistant,* a quarterly publication for the physician's office assistant, Oral Communications Seminars for medical school faculties, and Medical Information Service on SK&F products.

The Services Catalog is revised and published yearly by Smith Kline & French as a part of the company's program to provide the medical profession with a wide range of useful services. Copies of the new catalog are available from your SK&F Representative, or by writing to the *Services Department E-10, Smith Kline & French Laboratories, 1500 Spring Garden Street, Philadelphia, Pennsylvania 19101.*

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INTERNATIONAL SOCIETY OF MEDICAL DIRECTORS OF CHRONIC DISEASE FACILITIES

The first annual meeting of the International Society of Medical Directors of Chronic Disease Facilities will be held at 9:00 a.m. on Thursday, November 30, 1967 in the Warwick Hotel, Houston, Texas—immediately following the AMA Clinical Meetings. The annual meeting will last for one day.

Bertram B. Moss, M.D., President of the newly formed society and author of *Caring for the Aged,* has extended an invitation to all medical directors in chronic disease facilities and other interested physicians to attend this meeting.

After this first organizational meeting the future meetings of the society will be devoted to scientific presentations concerning the problems of medical directors in chronic disease facilities. The patients in these facilities, it must be noted, are not entirely the "senior citizen" category, but include just about all age groups and represent a wide variety of medical and surgical problems. Considerable research in this area is urgently needed and the I.S.M.D.C.D.F. hopes to stimulate interested persons in this field.

With Medicare ruling that every extended care facility must have a full-time medical director for all patients, including those not covered by Medicare, this new society perceives its role as a central agency where this special group of physicians may come together to obtain information and discuss problems and recent developments in their field.

Inquiries regarding membership and further details of the November meeting are encouraged and should be directed to:

Patricia Morgan Dorr, Executive Director
I.S.M.D.C.D.F.
Suite 1003
360 North Michigan Avenue
Chicago, Illinois 60601
Phone: FInancial 6-7133 (area 312)

"MD" CAR BUMPER STICKERS AVAILABLE TO GEORGIA DOCTORS

The green and white, reflective "MD" stickers, which a physician may attach to his car bumper, are once again available from the Medical Association of Georgia.

Complete with the seal of the Medical Association and the admonition to "Drive Safely," the stickers may be obtained, free of charge, by writing to: *Medical Association of Georgia, 938 Peachtree St., N.E., Atlanta, Ga. 30309.*

1967 CALENDAR OF MEETINGS

State

October 19-21—Medical Society of Virginia, Marriott Twin Bridges Motor Hotel, Alexandria, Virginia.

October 26-28—A Leadership Course for Chiefs of Staff, Hospital Administrators and Governing Personnel (or Trustees), "Today's Hospital Problems: An Interdisciplinary Approach," sponsored by the Mound Park Hospital Foundation and the University of Florida, Tides Hotel and Bath Club, Redington Beach, Fla.

October 27-28—Radiology of the Skull, Auditorium, Grady Memorial Hospital, sponsored by Emory University School of Medicine, Department of Radiology.

October 27-28—Burn Research Seminar (Eighth Annual), Guest House Motor Inn, Birmingham, Alabama.

October 27-28—Third College of Medicine Alumni Program, "Infectious Diseases," University of Florida College of Medicine, Gainesville, Florida.

November 1-3—Tennessee Academy of General Practice, 19th Annual Scientific Assembly, Gatlinburg, Tennessee.

November 3-4—Georgia Academy of General Practice, 1967 Annual Session, Regency-Hyatt House, Atlanta.

November 16-17—Obstetrics and Gynecology Seminar, College of Medicine, University of Florida, Gainesville, Florida.

May 5-7, 1968—114th Annual Session of the Medical Association of Georgia, Town House, Augusta.

Regional

November 9-11—Southern Thoracic Surgical Association, Sheraton Dallas, Dallas, Texas.

November 13-16—Southern Medical Association, Miami Beach, Florida.

November 17-18—Southern Society for Pediatric Research, Howard Johnson Motel, Charlottesville, Va.

December 4-6—Southern Surgical Association, The Homestead, Hot Springs, Virginia.

National

October 21-26—American Academy of Pediatrics, Washington Hilton Hotel, Washington, D.C.

October 21-26—American School Health Association, Miami Beach, Florida.

October 22-23—American College of Preventive Medicine, Fontainebleau Hotel, Miami Beach, Florida.

October 23-27—American Association of Public Health Physicians, Miami Beach, Florida.

October 23-27—American Public Health Association, Fontainebleau Hotel, Miami Beach, Florida.

October 23-November 3—Rodent-Borne Disease Control, Training Course, National Communicable Disease Center, Atlanta, Georgia.

October 25-28—American Clinical and Climatological Association, The Homestead, Hot Springs, Virginia.

November 9-11—Gerontological Society, Princess Martha Hotel, St. Petersburg, Florida.

November 9-11—National Federation of Catholic Physicians Guild, Miami, Florida.

November 10-11—Symposium on Management of Trauma and Disaster Medical Care (First Bi-Annual), Carillon Hotel, Miami Beach, Florida.

November 13-17—Applied Epidemiology for Physicians, National Communicable Disease Center, Atlanta, Georgia.

November 15-18—Neurologic Aspects of Internal Medicine, Duke University Medical Center, Durham, North Carolina.

November 19-22—Association of Military Surgeons of the United States, Sheraton-Park, Washington, D.C.

November 25-26—American College of Chest Physicians (Interim Clinical Meeting), Warwick Hotel, Houston, Texas.

November 26—Ninth National Conference on the Medical Aspects of Sports sponsored by the American Medical Association Committee on the Medical Aspects of Sports, Hotel America, Houston, Tex.

November 26-29—American Medical Association Clinical Convention, Houston, Tex.

November 28-30—Principles of Chemical Epidemiology, National Communicable Disease Center, Atlanta, Georgia.

November 29-December 3—American Medical Women's Association, Atlanta.

January 14-18—Society for Cryo-Ophthalmology, Second Annual Meeting, Miami Beach, Florida.

January 15-19—Neurology and the Internist, American College of Physicians Postgraduate Course, University of Miami School of Medicine, The Eden Roc Hotel, Miami Beach, Florida.

COMMITTEE ANNOUNCES PLANS FOR 1968 ANNUAL SESSION

The Medical Association of Georgia Annual Session Committee has just completed final plans for the MAG 1968 Annual Session to be convened April 5-7, 1968 at the Augusta Town House Motor Hotel in Augusta. A rundown of the program of Scientific Section Meetings, MAG Business Sessions and fellowship affairs is as follows:

Sunday afternoon, May 5, from 2:00 p.m. to 5:00 p.m.—Pediatric Section meeting; General Practice and Psychiatry Joint Section meeting; Dermatology and Public Health Joint Section Meeting; Radiology Section meeting; Orthopedics Section meeting; Ophthalmology and Otolaryngology Section meeting; and Pathology Section meeting. At 5:00 p.m., MAG will convene a Business Session for the election of Association officers. Later Sunday evening, the traditional Alumni Social Hours and Banquets will be held.

On Monday morning, May 6, MAG combines a Business Session with the meeting of the House of Delegates which will be followed by presentations relating to the socio-economics of medicine. The Internal Medicine Section meeting; the Obstetrics and Gynecology Section meeting, and the Surgery and Neurosurgery Joint Section meeting are scheduled for Monday afternoon from 2:30 p.m. to 5:00 p.m. The Richmond County Medical Society will sponsor a Social Hour for MAG members Monday evening at 6:30 p.m. which will be followed by the MAG President's Banquet at 8:00 p.m.

The final program event on Tuesday morning, May 7, is a combined MAG Business Session and the second session of the Association House of Delegates. Also planned are numerous Georgia Specialty Society business meetings and luncheons. Scientific and Commercial Exhibits will be displayed in the Augusta Town House Motor Hotel where the MAG meetings will be held.

ABSTRACTS BY GEORGIA AUTHORS

Allman, Fred L., Jr., M.D., Atlanta Orthopedic Clinic, Atlanta, "Fractures and Ligamentous Injuries of the Clavicle and Its Articulation," Journal of Bone and Joint Surgery 49-A:774-784(June)1967.

Fractures and ligamentous injuries of the clavicle and its articulations have been classified according to the extent of injury, and the high incidence of these injuries to athletes has been emphasized. A review of 120 cases of acromioclavicular sprain seen in The Atlanta Orthopedic Clinic, 73 of which were in athletes, indicates that conservative management is the treatment of choice in most cases. Surgical treatment is indicated only in those cases which can not be reduced and held adequately by conservative methods. Whenever reduction is unsuccessful by conservative means, then the treatment should be open reduction with repair of the involved ligament.

The excision of the outer end of the clavicle seems to be the most uniformly successful method of treatment for old complicated or untreated acromioclavicular sprains.

Fractures of the outer clavicle, distal to the coracoclavicular ligaments, in which the coracoclavicular ligaments have been completely torn (Neer Type II) should be treated in the same manner as a grade III sprain of the acromioclavicular joint—namely with strapping to keep the involved structures reduced in an anatomical position. If unable to hold anatomically reduced by strapping, then open reduction should be performed to internally "fix" the fracture.

Special attention has been given to the problem of unrecognized posterior displacement of the clavicle in cases of acromioclavicular sprain. Concern has also been expressed regarding seemingly minor injuries to the acromioclavicular joint which are unassociated with joint laxity, but which frequently interfere with athletic performance because of progressive degenerative changes within the joint.

Nader, Philip R., M.D.; Sills, James R., MPH; Calafiore, Dorothy, R.N., Dr. PH; and Warren, Robert J., M.D., National Communicable Disease Center, Atlanta, Ga., "Measles Epidemic Control in Mason County, Kentucky, 1965 to 1966, JAMA 200: 811-814(June5)1967.

Measles in the United States characteristically spreads through primary schools, kindergartens, and other places where susceptible children congregate. Preschool children most often are infected by their school-age siblings, and they often fail to maintain a chain of transmission. It would seem, therefore, that a community program designed to vaccinate young school-age children should interrupt epidemic spread of this disease.

The first such epidemic control program was conducted in Mason County, Kentucky, in November 1965. More than 90 per cent of the susceptible school children in this county were vaccinated during a simple, two-day campaign. Even though less than one-sixth of the preschool population had received measles vaccine, an epidemic was aborted, and repeated reintroductions of measles into the county failed to ignite epidemic buildup.

Christianson, H. B., M.D., New Orleans, La., and Fine, Robert M., M.D., Dept. of Medicine (Dermatology), Emory Univ. School of Medicine, Atlanta, Ga., "Vasculitis With or Without Panniculitis in Leukemia, Lymphoma, and Multiple Myeloma," Southern Medical Journal 60:567-572(June)1967.

Three cases of patients with leukemia, one with reticulum cell sarcoma, and two with multiple myeloma, in whom vasculitis, panniculitis, or both, developed as an initial or early sign of the diseases mentioned, have been reported. Vasculitis is frequently due to hypersensitivity to drugs and bacteria, but perhaps more often than we realize in patients with leukemia, lymphoma, or related diseases, it may be due to an altered immune mechanism. The mutant lymphoid cells constitute a "graft within the host, and an immunologic reaction is directed against the host tissue antigen (in this instance the blood vessels) and results in the vasculitis observed.

Martin, R. Russell, M.D., and White, Arthur, M.D., Medical College of Georgia, Augusta, Ga., "The Selective Activity of Lysostaphin in Vivo," J. of Laboratory and Clinical Medicine 70:1-8(July)1967.

Thirty-two nasal carriers of *Staphylococcus aureus* were treated for 7 to 12 days with intranasal lysostaphin. The *in vivo* response to therapy paralleled the *in vitro* susceptibility of the organisms to lysostaphin. There was marked reduction in the numbers of *S. aureus*, with a smaller decrease in the numbers of *S. albus* and no reduction in the numbers of diphtheroids. Reacquisition of coagulase-positive staphylococci was significantly less rapid in subjects with larger numbers of diphtheroids remaining in the nose after therapy than in subjects with smaller numbers of residual flora. Thus, the selective activity of lysostaphin permitted the demonstration of bacterial interference by other strains against recolonization by coagulase-positive staphylococci.

Lippitt, Wm. H., M.D.; Akhavan, Traz, M.D.; and Caplan, Gerald E., Memorial Hospital of Chatham County, Savannah, Ga., "Epidermoid Cyst of the Spleen with Rupture and Inflammation," Arch. Surg. 95:74-78 (July)1967.

A case of true epidermoid cyst of the spleen is reported in a ten year old boy who presented with an acute abdomen. The cyst was found to have ruptured, giving rise to severe granulomatous inflammation, possibly due to its cholesterol content or other related chemical substances. The recent literature is briefly reviewed and histogenesis of the cyst discussed. It is emphasized that generous sampling and examination of the cyst wall may reveal more keratinization than is apparent in the cases reported so far. It is believed that epidermoid cysts of the spleen develop through metaplasia of heterotopic endodermal tissue rather than being mesodermal in origin.

VanDuyn, John, M.D., Columbus, Ga., "Proteus-Staphylococcus Synergism in Punched Out Ulcers," Plastic and Reconstructive Surgery 40:86-88(July)1967.

There is evidence that staphylococci contain a potentiating substance which increases the pathogenicity of organisms in mice. Four cases are reported which suggest that this symbosis also takes place in man. The cases are all of skin ulcers which are of an unusually round and deep (punched out) variety. In all four of the ulcers a staphylococcus is present along with a proteus bacillus, the proteus being presumably the organism whose activity is enhanced.

Harkness, James W., M.B., Ch.B., and Peters, Hans J., M.D., Dept. of Surgery and Dept. of Pathology, Medical College of Georgia, Augusta, Ga., "Tumoral Calcinosis," The Journal of Bone and Joint Surgery 49-A:721-731(June)1967.

The subject of the paper is an unusual connective tissue disorder referred to as "Tumoral Calcinosis." In this condition calcification occurs in soft tissues, particularly around joint capsules and bursa. This condition is found to involve siblings frequently, and may possibly have a racial prevalence, since case reports from South Africa and the North American continent almost exclusively deal with colored patients. The etiology of this condition is poorly understood at the moment, but it might be associated with a defect of peritenon connective tissue following trauma. This

lesion is distinctly different from any other type of secondary calcification as seen, for instance, in various kidney disorders or as part of scleroderma. The treatment of the condition is surgical exploration and complete excision. Recurrence has only been noted in those cases where the excision was incomplete. The authors report six such cases and have reviewed the world literature which contains twenty-seven (27) cases for a total of thirty-three (33) cases.

Farshtchi, Davood, Ph.D., and McClung, Norvel M., Ph.D., University of Georgia, Athens, Ga., "Fine Structure of Nocardia asteroides Grown in a Chemically Defined Medium," Journal of Bacteriology 94:255-257(July)1967.

Nocardia asteroides was grown in a basal salts medium containing 2% glucose as the carbon source. This medium was supplemented with thiamine and biotin. The cells were fixed by Kellenberger's procedure, and embedded in Epon. The sections were poststained with uranyl acetate followed by lead hydroxide.

The cell wall appeared as an outer electron-dense structure and the cell membrane as an electron-transparent layer between two electron-dense layers. There was no morphological evidence for the presence of a capsule or slime layer.

The cytoplasmic region appeared as a moderately dense area with denser scattered polyribosomes in it. The nuclear region is seen as low-density material containing fibrils of greater density. The lipid granules appeared as electron-transparent granules in the cytoplasm.

The mesosomes of this organism appeared to be less complex than those of intracytoplasmic membranes found in mycobacteria or streptomycetes.

Symbas, Panagiotis N., M.D.; Abbott, Osler A., M.D.; and Leonard, John, M.S., Emory Univ. School of Medicine, Atlanta, Ga., "The Effects of Artificial Ventilation on Cerebrospinal Fluid Pressure," Journal of Thoracic and Cardiovascular Surgery 54: 126-131(July)1967.

In four groups of anesthetized dogs the cerebral spinal fluid pressure (CSFP), venous, arterial and endobronchial pressures were measured and serial arterial pH, pCO_2 and O_2 saturation determination were performed during artificial ventilation.

The dogs were ventilated with tidal volumes ranging from 100 to 700 ml. with a controlled volume respirator (Harvard physiological apparatus) or with ventilation pressures ranging from 10 to 35 cm. of H_2O with controlled pressure ventilator (Bennett).

The CSFP remained unchanged in normocapnic dogs and decreased in the two dogs with the pre-existing hypercapnia when the animals were ventilated with ventilation pressure of less than 20 cm. of H_2O or tidal volume of less than 400 ml. Ventilation pressures or tidal volumes above these values produced alkalosis, a progressive elevation of CSFP with parallel changes in venous and endobronchial pressures but no significant changes in arterial pressure.

It was concluded that assisted ventilation will increase the CSFP in dogs when the tidal volume exceeds 400 ml. or the inspiratory pressure exceeds 20 cm. H_2O.

Baker, Carleton H., Medical College of Georgia, Augusta, Ga., "Controlled Perfusion Pressure and Vascular Volume Changes in Dog Forelimbs," Amer. J. Physiol. 213:121-126(July)1967.

In isolated dog forelimb preparations, perfusion pressure was increased from 75 to 200 mm Hg in steps of 25 mm Hg. Changes in blood flow, peripheral resistance, limb weight, $Rb^{86}Cl$ recovery were determined. Vascular volume was estimated by red cells-Cr^{51} and albumin-I^{131}. The peripheral resistance declined with each elevation of perfusion pressure until it reached 150 mm Hg. The resistance then stabilized as the perfusion pressure was increased to 175 and 200 mm Hg. Limb weight (fast change) and vascular volume increased together to the 150 mm Hg pressure level. Then the volumes determined from the indicators plateaued and the volume change from the weighing device continued to increase through the 175 and 200 mm Hg levels. $Rb^{86}Cl$ recovery increased with each pressure increment to the 150 mm Hg level and then remained constant for the remaining perfusion pressure increases. The venous time-concentration curves after intra-arterial slug injections of albumin-I^{131} had uniform downslopes through the 125 mm Hg pressure level, but a second concentration peak appeared on the downslope of the succeeding curves. These data seem to indicate the opening of a second circulation, not capillary in nature, when the perfusion pressure was high enough.

Lichtman, Marshall A., M.D.; Vaughan, John H., M.D., Rochester, N.Y.; and Hames, Curtis G., M.D., Claxton, Ga., "The Distribution of Serum Immunoglobulins, Anti-γ-G Globulins ('Rheumatoid Factors') and Antinuclear Antibodies in White and Negro Subjects in Evans County, Ga.," Arthritis and Rheumatism 10:204-215(June)1967.

The distribution of immunoglobulin levels in a random sample of healthy subjects aged 15 to 74 years was studied. A higher concentration of gamma globulin was present in Negro as compared to white subjects in all three of the major immunoglobulin classes but was of statistical significance in the γG fraction only. An increase in γA in older subjects of both races was noted. An increase in γM among females was observed. A low-order, but significant, positive correlation between γG and γA was present among white and Negro subjects. Gamma-G and γM levels were virtually identical when a sample of white urban New Yorkers and white rural Georgians were compared. Gamma-A concentrations were higher in the rural subjects and this difference was related to the older mean age of the Georgians sampled.

Anti γG globulins ("rheumatoid factors") were detected in increasing frequency with age and with greater frequency among Negroes and white females than among white males. Possible correlations between anti-γG globulins and immunoglobulin levels were found only among Negro subjects.

Antinuclear antibodies were not detectable in any of the sera.

McDonough, J. R., M.D., Washington, D.C., and Hames, Curtis G., M.D., Claxton, Ga., "Influence of Race, Sex and Occupation on Seasonal Changes in Serum Cholesterol," Amer. Journal of Epidemiology 85:356-364 (May)1967.

Serum cholesterol was examined in various race, sex and occupation groups in the population of Evans County, Georgia. Significant seasonal variation in serum cholesterol was found among white and Negro males while seasonal variation was of borderline significance among females.

Occupation-season interaction was of borderline significance. The data suggest that the sedentary occupation group appeared not to experience significant seasonal cholesterol variation, but that seasonal variation was significant among active occupational groups.

Seasonal energy flux within the organism has been suggested as a likely hypothesis to explain seasonal cholesterol variation.

"THE MEDICAL UNITS 'PLANNING GUIDE' " AND "THE BUSINESS SIDE OF MEDICAL PRACTICE" AVAILABLE TO GEORGIA DOCTORS

For the fourth consecutive year, the Medical Association of Georgia is offering to the doctors of Georgia the American Medical Association-Sears, Roebuck Foundation, Inc. booklets entitled, "The Business Side of Medical Practice," and "The Medical Units 'Planning Guide.' " The material is free of charge and either or both may be obtained by writing to the *MAG Headquarters Office, 938 Peachtree St., N.E., Atlanta, Ga. 30309.*

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INTERNATIONAL CONGRESS ON ACCIDENTS TO BE HELD IN NEW YORK IN 1969

The third triennial congress of the International Association for Accident and Traffic Medicine, which consists of physicians and members of other scientific disciplines concerned with accident and traffic problems, will be held at the Americana Hotel, New York City, from May 29 through June 3, 1969.

According to Dr. Milton Helpern, President of the Association, the chief purposes of the congress are: (1) to focus much-needed professional attention on the various issues involved in motor vehicle accidents and to some extent airplane accidents; (2) to provide an opportunity for scientists to report on recent research and other work in this field; and (3) to increase even further current public interest in traffic safety and related areas. If even modest strides are made toward these ends, Dr. Helpern said, he foresaw a significant expansion of research activity in the field and a greater awareness by physicians and others of traffic accident problems.

The International Association for Accident and Traffic Medicine was formed in Italy in 1960. Its first triennial congress was held in Rome in 1963 and the second was held in Stockholm last year. Dr. Helpern, who is Chief Medical Examiner of New York City and Professor and Chairman of the Department of Forensic Medicine at the New York University School of Medicine, was elected President at the Stockholm meeting and will serve in the post through the 1969 conference.

The Association consists of national delegates from various countries and members who belong on an individual basis.

MENTAL HEALTH INFORMATION CLEARING HOUSE REORGANIZED

Plans for reorganization of the National Institute of Mental Health's National Clearinghouse for Mental Health Information have been announced by Dr. Stanley F. Yolles, Director of the Institute.

As the scientific and technical information resource center of the National Institute of Mental Health, the Clearinghouse's objectives involve the systematic collection, storage, analysis, synthesis, retrieval, and dissemination of information. A computer-based operation, the Clearinghouse will especially expand its information services and publication activities under the reorganization plans.

"We are placing new emphasis upon developing ways and means," Dr. Yolles said, "to increase and improve scientific communication in the field of mental illness and mental health."

Dr. Lorraine Bouthilet, named Scientific Director of the National Clearinghouse for Mental Health Information, will in her new post develop new activities and publications geared both to National Institute of Mental Health overall programs and to major emerging needs in critical areas such as narcotics and drug addiction, alcoholism, crime and delinquency, and suicide prevention.

ELEVENTH ANNUAL FELLOWSHIP PROGRAM ANNOUNCED BY WYETH LABORATORIES

Applications for two-year Wyeth Pediatric Fellowships are available now for residencies commencing July 1, 1968, it was announced by the chairman of the Selection Committee, Philip S. Barba, M.D., past president of the American Academy of Pediatrics, 120 Erdenheim Road, Philadelphia, Pennsylvania 19118. All applications for this, the eleventh group of Fellowships, must be in the hands of the Committee by December 1, 1967.

Sponsored by the Wyeth Fund for Postgraduate Medical Education, each of these fellowships provides $4,800 over two years toward the advanced training required for board certification in pediatrics. Wyeth's monthly payments, made directly to recipients, are in addition to the usual stipends paid to residents by the institutions in which they train.

Eligible to apply are interns, physicians who have recently completed an internship, research Fellows, or physicians completing their tour of duty with the Armed Services or the U.S. Public Health Service. Applicants must be citizens of the United States or Canada. Those who have already started Pediatric Residency training are not eligible.

Each Fellow may choose the hospital in which he will train provided that it is accredited by the Residency Review Committee.

A voluntary committee of distinguished pediatricians, headed by Dr. Barba, has the responsibility of choosing the Pediatric Fellows. Wyeth plays no part in the selection of recipients.

Wyeth Laboratories inaugurated this Fellowship program in 1958 to encourage interns and other young physicians who want to specialize in pediatrics, but who would find it difficult to finance the required postgraduate training.

PAMPHLET LISTS BOOKS FOR HOSPITALIZED CHILDREN

"Books to Help Children Adjust to a Hospital Situation," an updated, fifty-five page pamphlet compiled by the nurses' and children's librarian at Children's Memorial Hospital, Chicago, is now available from the Association of Hospital and Institution Libraries, a division of the American Library Association. Originally compiled in 1956 to help volunteer library workers at the Hospital select books for particular patients, the list has, over the years, been supplemented and in its present form contains 780 titles, arranged by age groups under seven subject categories—Adjustment and Understanding; Cooperation with Others; Fear and Reassurance; Hospitals, Doctors, Nurses; Loneliness and Homesickness; Making New Friends; and Just for Fun. Very brief annotations will help the user select the best book for the child's needs.

Copies of the pamphlet are available from the AHIL office of the American Library Association headquarters, 50 East Huron Street, Chicago, Illinois 60611, at 50¢ a copy. Please remit with order.

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July, 1967, 99 killed

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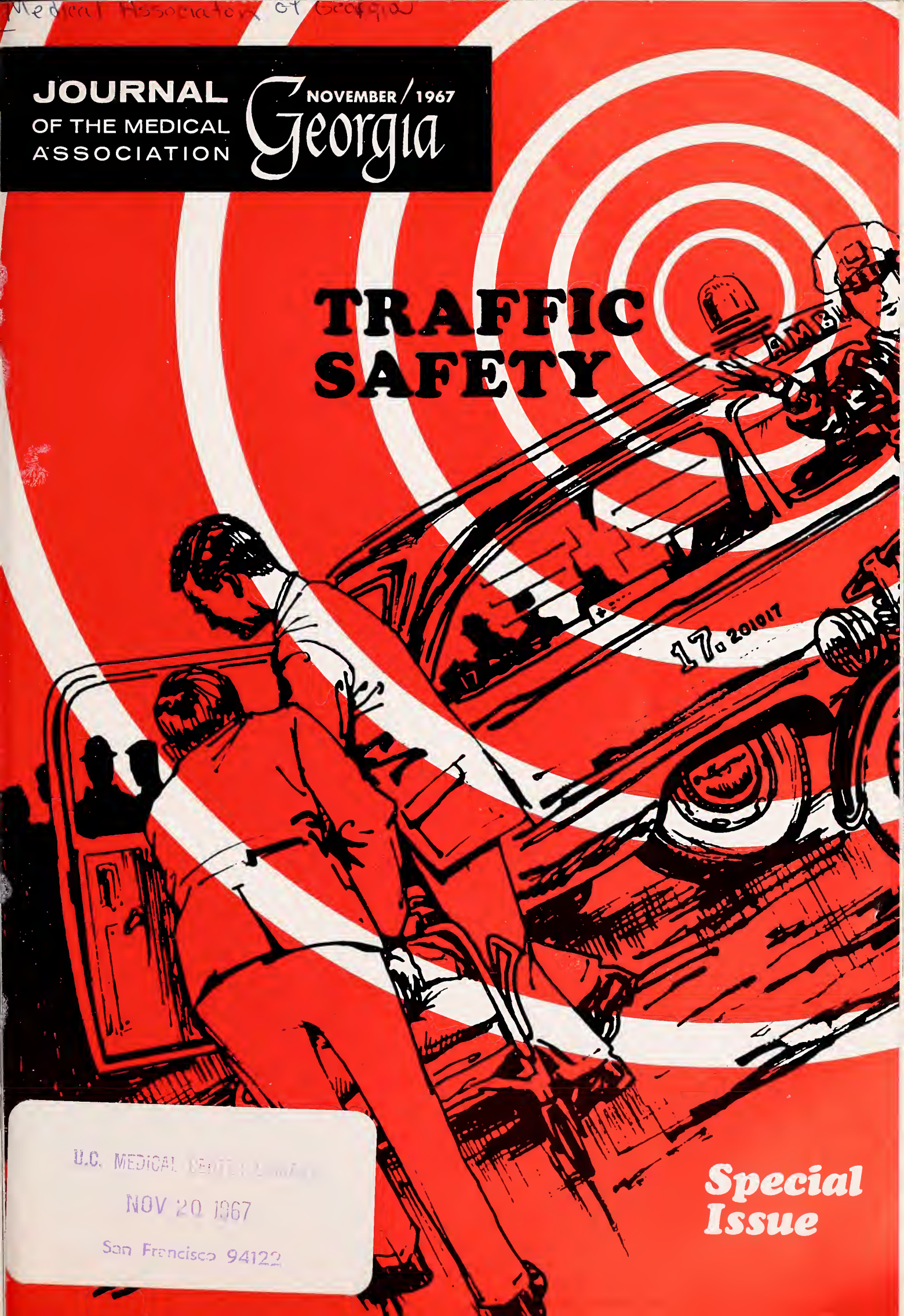
TRAFFIC SAFETY



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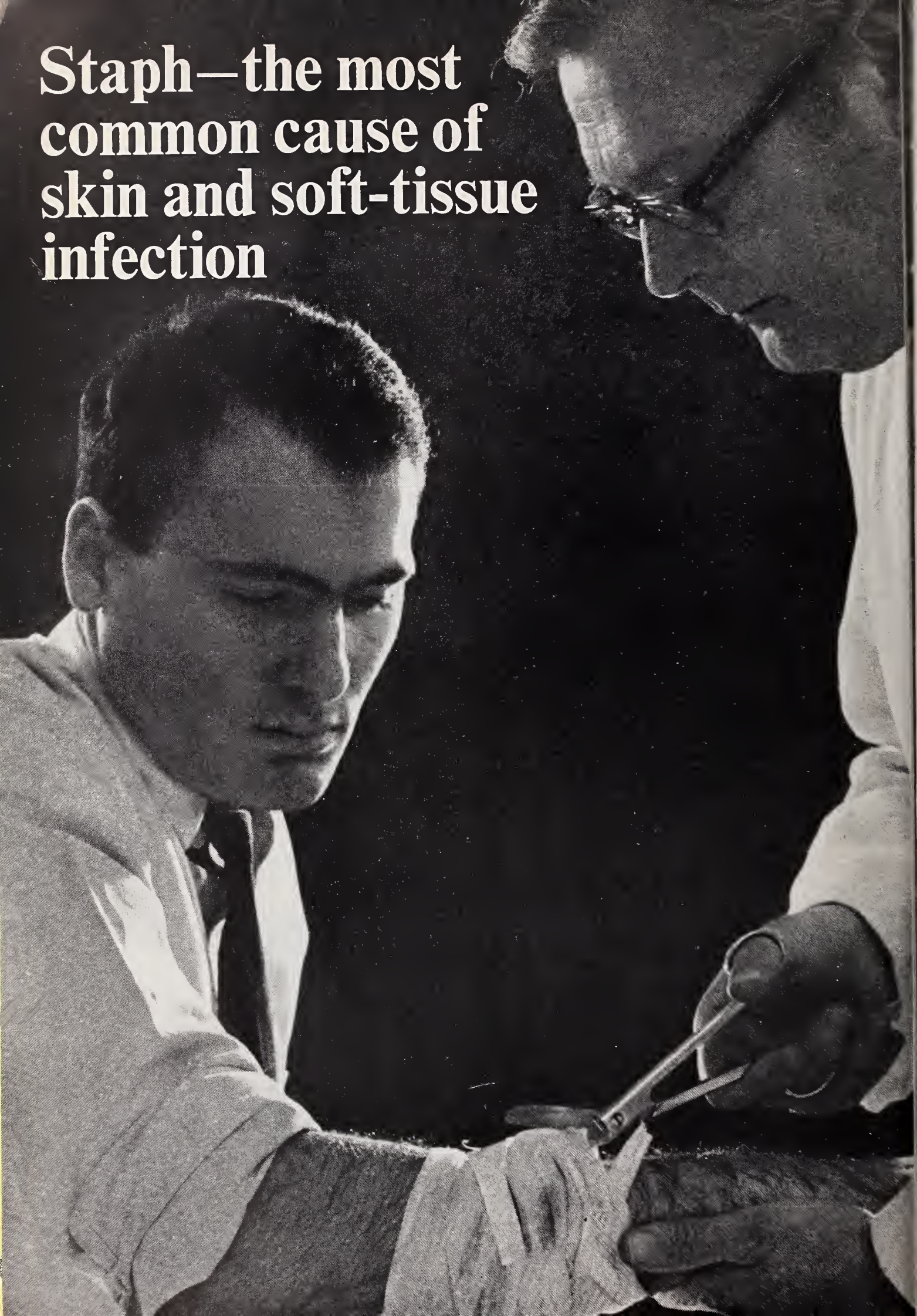
Sketch courtesy AMA, designed by Stein Typography Shop, Atlanta.

Staph—the most common cause of skin and soft-tissue infection



JOURNAL OF THE MEDICAL ASSOCIATION Georgia

Fleming L. Jolley, M.D., *Guest Editor*

TRAFFIC SAFETY: Special Issue

Georgia Needs New Traffic Safety Laws

Elmo Ellis, General Manager WSB, *Atlanta*

I RECENTLY CAME ACROSS SOME STARTLING FIGURES. They should be sufficient to alarm every Georgia citizen who is exposed to daily driving on our roads and highways. If traffic accidents continue at the present rate, during the next nine years we will suffer the loss of more lives of American men, women and children than the combined loss of all of our military deaths in every war our nation has ever fought—from the Revolutionary War through the Civil War right up to current Viet Nam losses. This is almost beyond comprehension. While the combat deaths, saddening as they are, have involved military troops, dying for a cause, these highway deaths are all cases of people dying without a cause.

Odds For You Are Serious Injury

Our traffic deaths have become so great that of all citizens alive today, from one-half to two-thirds either have been seriously injured in a traffic accident, will be seriously injured in a traffic accident or will be killed in a traffic accident.

That shakes you up, doesn't it?

Accidents have become the number-one cause of death for American citizens between the ages of one and 37, and for those between one and 24, more will die in accidents than from every other form of death and disease combined.

These are disastrous figures. Sorrowful—shameful—needlessly tragic. However, I would be wasting your time if I were merely here telling you how bad this national problem has become. My message to you is that something can be done to change this situation.

Georgia's Death Rate in National Top Ten

If you took all 50 states—and rated them on automobile fatalities—you would find that last year Georgia ranked among the deadliest twenty per cent of the states in its traffic death-rate. The simple truth is that in those states where the *most* is being done in the areas of traffic safety engineering, enforcement and education, the number of people being killed is smaller. Georgia has *not* been meeting its obligation to do everything possible to protect its citizens from death on the highways.

In no area have we been more negligent than in adopting modern traffic safety legislation.

Three years ago in Georgia a special Legislative Traffic Safety Study Committee was established. Its members met for months and reported back with a recommendation of several pieces of traffic safety legislation which would let Georgia utilize laws which have been proved effective in other parts of the country. *Every bill in the packet was killed.* The committee met again and prepared a smaller packet of traffic safety legislation for the 1966 General Assembly. *Again, every bill was killed.* The committee was re-established and again prepared a packet. This time they boiled down their efforts to only four bills, for presentation to the 1967 Session of the General Assembly. *Three of those four failed to pass and the fourth was vetoed by the Governor.*

It's a distressing record—of frustration and failure. But why would legislators vote against traffic safety legislation? Presumably everybody in his right mind would vote to see a reduction from the 1,603 fatalities, 22,623 injuries and 68,483 traffic accidents reported in Georgia last year. If it is true, *as the experts tell us it is,* that modern safety legislation can do something about this—that the right laws are saving lives in other states and reducing the toll of accidents and injuries, why would Georgia's legislators refuse to pass safety legislation year after year?

People Have Not Demanded Legislation

It seems like a big mystery. But the answer is not hard to find. The members of the General Assembly, elected by the people they represent, only reflect the concern and interests of those people. The truth is that the reason Georgia legislators have failed to pass safety legislation each year is that the people of Georgia have not demanded that they support this legislation. Our legislators get concerned when the voters get concerned. Let me show you how it works. When the people got their ire up and demanded legislative action on such dubious subjects as jug-fishing, payment for dead hound dogs, and whether chickens would roost according to Daylight Saving Time, the Legislature acted. However, when it came to passing laws to curb drunk driving, to train youngsters in driver education, and to require that everyone licensed to drive a vehicle in the state be physically and mentally capable of handling that vehicle, the people have shown too little concern—and so these necessary laws die for lack of legislative support or action.

Congress Took Action

Georgia has not been alone in neglecting its duty in this vital area. The problem became so bad over the nation, where 53,000 people were killed in traffic accidents during 1966, that Congress saw fit to take matters into its own hands. The National Highway Safety Act of 1966 took the same basic problems that Georgia's Legislative Traffic Safety Study Committee had been wrestling with and drafted from them standards which all states will be required to meet during the next few years.

It is a sad commentary on our lack of concern at the state and local level, when the national government has to tell us that we must do our duty to keep from killing men, women and children on our roads.

But it is not enough just to have federal standards prescribed. Now the ball has been thrown back to the states and it's up to us to enact legislation to at least comply with the new federal standards. While we should keep in mind that these standards exist, and should tailor our action to meet them and assure uniformity among the states, our motive for supporting this important safety legislation should not be to meet federal standards and acquire federal matching dollars but to reduce the loss, death and injury in the state of Georgia.

On the following pages you will find a packet of eight proposals which have been endorsed by the Legislative Traffic Safety Study Committee. They will be reviewed bill by bill and you will be given background on each one.

Remember: the most important phase of this united effort rests on your shoulders. You are the ones who must fill the void which has cost the defeat of similar legislation for the past four years. You are the ones who can develop public interest and public awareness so that the elected representatives of Georgia will see apathy toward highway safety legislation replaced with enthusiastic demands for these life-saving measures.

For many years, at least from the end of World War II until 1961, Georgia's traffic death rate came down. It has climbed since 1961, and in the five years between 1961 and 1966, the number of dead has taken the unprecedented leap from 1,011 to 1,603.

To bring this death figure back down, as we know it is within our power to do, is a challenge we cannot permit ourselves to fail to meet.

This, then, is my message. The fact that traffic deaths in Georgia and in the nation are at an all-time high must not just be met with wailing and indignation. There are positive programs that can reverse this tragic trend. You hold the key to the successful enactment of these programs through developing the public support which must precede them.

I urge you to get acquainted with the safety laws we must have in this state. You need them. I need them. The people of Georgia need them. We couldn't pass any better laws to save our lives.

NEW MEMBERS OF THE MEDICAL ASSOCIATION OF GEORGIA

Allende, Eugenio G. Active—Baldwin	Milledgeville Hospital Milledgeville, Georgia 31062
Armstrong, George F., Jr. Active—Fulton	47 Peachtree Park Drive, N.E. Atlanta, Georgia 30309
Bartholomew, Philip R. Active—Fulton	478 Peachtree Street, N.E. Atlanta, Georgia 30308
Bates, Jack M. Active—Hall	700 S. Enota Drive, N.E. Gainesville, Georgia 30501
Bergherm, Bruce A. Active—Fulton	1968 Peachtree Street, N.E. Atlanta, Georgia 30309
Cooper, Charles M. Active—Hall	700 S. Enota Drive, N.E. Gainesville, Georgia 30501
Crary, Ely J. Active—Cobb	4730 Austell Road Austell, Georgia 30001
Eberhardt, Myron O. Active—Habersham	Box 248 Cleveland, Georgia 30528
Freeman, Helen C. Active—Baldwin	Milledgeville State Hospital Milledgeville, Georgia 31062
Gay, James W. Active—Fulton	710 Peachtree Street, N.E. Atlanta, Georgia 30308
Hirt, Alfredo Active—Fulton	490 Peachtree Street, N.E. Atlanta, Georgia 30308
Kendrick, Douglas B. Active—Fulton	80 Butler Street, S.E. Atlanta, Georgia 30303
Kimmerling, Richard W. Active—Cobb	Cherokee Medical Building Smyrna, Georgia 30080
Knox, John D., Jr. Active—Cobb	1416 Cherokee Street Marietta, Georgia 30062
Lamis, Pano A. Active—Fulton	340 Boulevard, N.E. Atlanta, Georgia 30312
Lewis, Ernest L. DE2—Fulton	80 Butler Street, S.E. Atlanta, Georgia 30303
McGuire, James E. Active—Cobb	1323-B Roswell Rd., N.E. Marietta, Georgia 30060
Navarro, Mario P. Active—Baldwin	Milledgeville State Hospital Milledgeville, Georgia 31062
Robinson, Paul H. Active—Fulton	1365 Clifton Rd., N.E. Atlanta, Georgia 30322
Russell, R. James Active—Fulton	478 Peachtree Street, N.E. Atlanta, Georgia 30308
Soder, Parry D. Active—Fulton	265 Ivy Street, N.E. Atlanta, Georgia 30303
Sommerville, Margaret J. Active—Fulton	4346 Roswell Rd., N.E. Atlanta, Georgia 30305
Stuckey, Katherine Active—Fulton	1405 Clifton Rd., N.E. Atlanta, Georgia 30333
Wright, James R. Active—Hall	301 Northside Drive, N.W. Gainesville, Georgia 30501

HIGHWAY SAFETY—A PROGRESS REPORT

William Haddon, Jr., M.D., *Washington, D.C.*

How many Americans understand that on an average day, year in and year out, the highway casualties in the United States total over 10,000 injured?

How many know and feel the tragedy inherent in our average weekly deaths of more than 1,000?

How many appreciate that our economic losses average about one billion dollars each month?

How many know that each year more than eight million days of hospitalization are now required merely for the care and treatment of the survivors?

Does anyone really appreciate the extent of facial disfiguration, the brain damage, and the many other permanent results in bodily damage and ruined lives?

This has not been a field in which the best scientists and tools of modern life have been brought to bear to any great extent. It has largely remained outside of the areas traditionally of concern to most of the professionals who could contribute their skills to its solution.

Researchers at Work

The signs of change, however, are clearly with us. In fact, beginning about a dozen years ago, a few research workers here and there began to uncover the facts which have increasingly pointed the way to the possibility of great reductions in these tragic totals of human and property damage.

In outline, the problem divides logically into three parts, in each of which are circumstances which contribute greatly to the losses that continue to occur.

We refer to these three parts of highway safety as the precrash, crash, and postcrash phases of the problem.

Precrash Phase

In the first, or *precrash phase,* the issues are those which determine whether or not a crash takes place. Here, for example, we are concerned with drunken driving, blowouts and the other mechanical failures of vehicles, medical conditions which may lead to incapacitation while driving, and those features of highway design and maintenance such as lighting and markings which make it more difficult for the operator to continue safely on his way.

Crash Phase

In the second, or *crash phase,* we are concerned with the circumstances which, in the crash itself, determine whether or not any injury occurs, and, if so, its severity. Here, the success of the vehicle "package" in protecting its occupants is the paramount issue. Also important is the success of the highway designer in providing the safest possible highway crash design of the road, for example, by ensuring that vehicles that do leave the roadway will not be able to hit solid objects that decelerate them too abruptly to allow the survival of those involved.

It is strange with respect to the crash phase that most Americans still do not understand that it is scientifically possible for them to ship themselves and their loved ones just as successfully packaged and, consequently, as safely as they ship delicate wedding presents and other fragile cargo. Yet many who

About the Author

William Haddon, Jr., M.D.

William Haddon, Jr., M.D., was appointed by the President in the fall of 1966 as the first Administrator of the National Traffic Safety Agency and of the National Highway Safety Agency, United States Department of Commerce. He is now Director of the National Highway Safety Bureau, their successor in the new Department of Transportation.

would consider it preposterous to ship a teacup loose in an empty barrel with a hostile interior and sides that may fall open, do precisely this with themselves and their children, and at high speed.

Since crashes will continue to occur in substantial numbers, for the foreseeable future, we are placing strong emphasis on greatly improving the crash design of vehicles, and especially the safety of the occupant compartment itself.

Similarly, at a time when our children continue to learn of the danger of wolves in the forest, we must somehow also educate them and ourselves to the hazards of our modern environment, and what can be done about them. For example, an uncushioned bridge pillar, or a light pole designed so that it kills rather than shears when hit, is a hazard far more serious than any wild animal could possibly be, even if loose in a downtown area. Similarly, the steering shaft of a car does not need to be a spear aimed at the chest; rather it can be redesigned as a cushion that protects the driver, as required under our Departmental standards on all vehicles manufactured after December of this year.

Postcrash Phase

Once the crash has taken place, we are concerned with the *postcrash phase* and the circumstances which in it determine whether or not many will live or die. Here, of course, the principal issues involve the rapidity and quality of the post-accident response; the communication system and emergency transportation; and the provision of the best in first-aid and medical care.

Emergency Services Archaic

Unfortunately for many of the dead and injured, emergency services in a large portion of the United States are archaic at best. Although there are outstanding exceptions in some areas of the country, in most there have been no requirements that ambulance attendants be expert in first-aid, that their equipment meet acceptable standards of any type, or that their patterns of operation be sufficient for the great responsibility placed upon them. We believe on preliminary evidence that such deficiencies are contributing directly to thousands of deaths each year in the United States, especially in rural areas.

That the shortcomings of our present situation are unnecessary is illustrated by the fact that as a nation we have demonstrated and applied a completely different level of planning, technology, and understanding in our handling of very similar injuries occurring under the conditions of jungle warfare.

By contrast, for example, few on the domestic scene expect to see helicopters working rapidly in transferring the injured to hospitals, the use of highly skilled medical corpsmen and other paramedical professionals; or for that matter survival rates for serious injuries anywhere near as high as those now achieved routinely under military conditions. This is all the more tragic when it is considered that on the civilian scene the logistical requirements can be anticipated with a precision impossible under the shifting conditions of modern war. The highways continue in the same locations, the hospitals do not move about, the evening and weekend hours in which a greatly disproportionate share of the major crashes take place, are all well known in advance. Yet such considerations are only now beginning to be weighed by those concerned with the survival of those injured on the nation's roads.

Questions to Be Asked

In view of the seriousness of the issues and the three parts of the problem, what kinds of questions should you ask when you read in the morning newspaper that yet additional lives have been wasted?

To cite but a few, you should ask, with respect to the precrash phase, whether anyone took a careful look at the vehicle to determine whether it had had a blowout or an identifiable mechanical failure. As you know, this is done well only on very rare occasions.

Similarly, you should ask whether anyone bothered to check to see whether the responsible driver had been drinking and to what extent. Here, of course, merely sniffing is not a reliable measure, and it is essential that a competent medical examiner system and chemical test methods be applied. Yet here, too, in much of the country, no one does this on a routine basis, despite the consistency of findings that when it is done, heavy drinking is found to have played a very major role in the majority of serious crashes.

Very careful attention should also be paid to the role of the highway in favoring crash initiation. Did the crash occur, for example, at a location similarly

A physician with degrees from the Massachusetts Institute of Technology, Harvard Medical School and the Harvard School of Public Health, Dr. Haddon is a member of the Committee on Alcohol and Drugs of the National Safety Council, the Commission on Military Accidents of the Armed Forces Epidemiological Board of the Department of Defense, the Secretary's Advisory Committee on Traffic Safety of the Department of Health, Education and Welfare, and the Council of Medical Administrators. He is a Fellow of the American Public Health Association.

Dr. Haddon has received numerous awards and is the senior author of *Accident Research, Methods and Approaches*, an award winning text published in 1964.

involved in the past? Is there an inventory, as will be required under the Department of Transportation's standards, of locations which are causing trouble, and a plan for their correction? These are all questions then, that must be asked and asked routinely in connection with the factors that favor the occurrence of crashes.

Did the Car Protect Its Contents?

How about the second, or crash phase? Here the questions relate to such issues as whether the doors of the car came open, spilling its contents to their deaths. Another crucial question in relation to the crash itself is what portions of the vehicle injured each of those involved? Did a knob puncture the eyeball of an infant lying on the front seat? Did the steering shaft penetrate the chest of the driver? How far rearward did its design permit it to be driven by the impact? Was the windshield of a type common on most vehicles built prior to 1966, but prohibited by the Department's standards as of this coming January 1, which allows the head to penetrate on major impact, placing the neck in a collar of glass? Were safety belts installed in the vehicle? Were they used? Did the design of the vehicle permit the penetration either of another vehicle or of some structure with which the car was in collision? Was the roof structure adequate to the forces which came to bear upon it? In short, did the package in which human beings were being shipped provide them the kind of protection which we afford as a routine matter for our property?

Obstacles on the Road?

In the crash phase, too, the questions should concentrate on the highway itself. Had a utility pole or other structure been placed so close to the road that a car leaving it by a length or two could not avoid impact, with fatal results? Could the space along the road have been adequately cleared of the obstacles which decelerated the vehicle too abruptly for survival? Or, if this had not proved possible, could the structure involved have been cushioned with an adequate guardrail, or made more yielding?

The evidence is overwhelming that such measures are essential for the safety of the traveling public. Yet, we have become so accustomed to our environment that few inquire, even in the case of a serious crash, as to the extent to which such factors have contributed to the results.

The Call for Help

Similarly, with respect to the postcrash phase, there are many requirements and questions, some of which I have already noted. Among these, attention must be directed to what provision—or its lack—had been made for signaling help. If you have ever been stranded, on almost any of our nation's highways, you know how extremely difficult it usually is to initiate a prompt call for help. Yet this shortcoming is costing us dearly almost everywhere in our land. It is for this reason that our sister agency, the Bureau of Public Roads, is experimenting with call boxes on heavily traveled roads, working out systems which will serve this widespread need.

Another question, with respect to any serious crash, is whether a mechanism had been provided for the receipt and emergency routing of the appeal for help, for its timely dispatch, for its arrival at the scene, and for the competence of the service and first-aid there provided. Finally, you should ask how much time elapsed between the occurrence of the accident and the arrival of the injured for treatment at the medical facility, and how much time elapsed there before they received the care that was so urgently needed.

Congressional Action

In recognition of the seriousness of such problems and the need to bring the nation's resources to bear on them, a year and a half ago, President Johnson requested the Congress to take action. Within six months, a record-setting pace, the Congress returned a comprehensive well-constructed package consisting of two Safety bills for the President to sign into law. Let me now briefly outline the areas which these Acts cover.

The National Traffic and Motor Vehicle Safety Act is the most well known. Its first title provides a mandate to establish appropriate Federal motor vehicle safety standards, the first set of which were issued last January—only two months after the agency's establishment—and under the statute an additional group will be issued this coming January.

Title I of the Act also provides the legal authority to enforce such vehicle and equipment standards and specifies that the manufacturers must notify purchasers of vehicles and equipment known to have defects, and to notify the Department as well.

In addition, the agency is to conduct research, testing, and development and training activities, many of which have already been initiated under a series of more than 70 contracts with universities, private research groups, and other organizations.

Under Title II of the National Traffic and Motor Vehicle Safety Act, the agency is also directed to establish standards for tires, and the first legal steps in this direction are already pending.

Under Title III of the Act, we are to study the needs for research and test facilities and report back to the Congress at the end of this year. This work is

proceeding on contract with four private research organizations.

Finally, under Title IV of the National Traffic and Motor Vehicle Safety Act, the National Driver Register, in which all States participate, was transferred from the Bureau of Public Roads to the National Highway Safety Bureau. This is a mechanism under which any State can check on the major aspects of a driver's record in other States.

Uniform Standards Issued

Under the Highway Safety Act of 1966, our job is the establishment of uniform standards for State highway safety programs. On June 27, Secretary of Transportation Alan S. Boyd issued the first group of these. They had been developed during the preceding seven months with very considerable participation—as appropriately required by the statute—of a wide variety of individuals and organizations from virtually all the States, from organizations of State and local government officials, from National and other safety organizations, and from a wide range of interested groups. These standards cover the following thirteen areas indicated by their titles:

Driver Education
Driver Licensing
Motorcycle Safety
Traffic Records
Alcohol in Relation to Highway Safety
Periodic Motor Vehicle Inspection
Motor Vehicle Registration
Highway Design, Construction, and Maintenance
Traffic Control Devices
Identification and Surveillance of Accident Locations
Codes and Laws
Traffic Courts
Emergency Medical Services

A very important provision of this law, one which I very strongly endorse personally, is the requirement which places in the hands of each Governor the authority for all State activities under the grant-in-aid program. This was a move on the part of the Congress to ensure a unified approach to this important problem within each State, and among all the States.

The great importance of work at the local level was also emphasized. At least 40 per cent of the funds must be spent in local communities, where the problem can and must be approached by those closest to it.

The Highway Safety Act and those who framed it did not anticipate a Federal takeover of functions we all feel should be left to the States. The legislative history makes very clear that the purpose was not to establish Federal licenses, certificates of title, police forces or any other such activities. Rather, the objective was to provide a means for helping those who are nearest to the problems involved to deal with them most effectively. Judging from the exceptionally fine response in almost every State during the past nine months, this objective will be achieved and the Federal role will be one of standard setting, in cooperation with the States, the provision of the financial assistance, and especially the sponsoring under both safety Acts of the research that must be greatly intensified if we are to obtain the facts upon which all of our programs must increasingly be based.

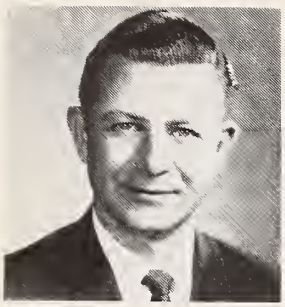
In closing, I cannot emphasize too strongly that, although it will take us still many months to finish building the organization necessary to carry out completely all of the activities under both of these Acts, we are moving systematically in this direction and we will increasingly be able to be of assistance to all of you who share with us a concern for this continuing and completely unnecessary national tragedy.

KRUEGER RESIGNS MAG POST

Mr. Milton D. Krueger, Executive Secretary of the Medical Association of Georgia, will resign this position effective November 30, 1967. Having served MAG for the past 15 years, Mr. Krueger will leave Georgia to assume the post of Director of Communications with the California Medical Association in San Francisco.

Mr. Krueger's new duties will include the area of professional relations as well as public relations with the press and other communications media. Prior to his affiliation with MAG, Mr. Krueger was on the faculty of the Division of Journalism at Emory University for two years. He came to Georgia in 1950 after two years on the faculty of the University of Missouri School of Journalism where he received his M.A. degree in Journalism.

Mr. Krueger stated this sentiment in his letter of resignation to the Executive Committee of MAG: "I am truly indebted to the Officers, Councilors and MAG membership for their understanding and warm Friendship. My family and I do deeply appreciate having been a part of MAG and we are most grateful for all the happy times afforded us by the Association since 1952."



THOSE NEW GADGETS ON THE CAR— ONE MAY SAVE YOUR LIFE

James W. Hall, *Atlanta*

THE PREAMBLE of the National Traffic and Motor Vehicle Safety Act of 1966, which Dr. William Haddon discussed in his article, states, "To provide for a coordinated national traffic safety program and establishment of safety standards for motor vehicles in interstate commerce to reduce accidents involving motor vehicles and to reduce the death and injuries occurring in such accidents." The Act requires "Motor Vehicle Safety Standards" to be stated in terms of minimum performance, standards which are practicable, which meet the need for motor vehicle safety and which provide objective criteria.

It is obvious to anyone caring to find out the will of the Federal Government that there is no attempt to design vehicles, equipment nor component systems. The Act specifically obviates the National Traffic Safety Bureau from becoming involved in design criteria.

The motoring public was an accurate barometer for Congress in forecasting safety needs while designing the law. This is attested to by the development of Title II—Tire Safety, of PL 89-563. The inability or unwillingness of the tire manufacturing industry to properly communicate with the using public created grave suspicions. The antidote is stringent legislative requirements on tire labelling, testing of new tires and subsequently retreaded tires. I am chairman of the Council's Tire Committee.

About the Author

James W. Hall, Jr., is a native of Atlanta and a graduate of the University of Miami. He is Chairman of the Board and Treasurer of 'Red' Ivey's Automotive Service, Inc., full service automotive maintenance company and tire dealer in Atlanta.

Mr. Hall is a member of the Atlanta Traffic and Safety Council, and the Atlanta Chamber of Commerce; President (1966-1968) Independent Garage Owners of Georgia; Director of Registered Apprenticeship Mechanics Training Program for State of Georgia; a member of the National Motor Vehicle Safety Advisory Council and Chairman of the Tire Committee; Chairman, Automotive Council of Southern States Apprenticeship Conference, 1967; Member Steering Committee, Governor's Highway Safety Conference, 1967; and a member of the Traffic Safety Committee of the Georgia Safety Council.

Standard Setting

The basic legislation required from the outset that first priority be given to setting Standards. January 31, 1967 was the date by which initial standards had to be set. The initial standards by law are to go into effect on January 1, 1968.

The initial standards followed the clearly defined procedures specified by law. This law, the Administrative Procedures Act, defines the authority and responsibility of governmental regulatory agencies and the appeal rights of those being regulated. The process is a two-way street.

The Safety Performance sequence numbering method is illustrated with Figure 3. Precrash is 100 series, crash is 200 series and postcrash, 300 series. An illustration of precrash phase is standard 109, tires. Faulty or worn tires can contribute to precrash conditions and actually be the responsible system.

Standards in the 200 series are to cover systems and items which attenuate crash effects on vehicle occupants. Standard 204 is the one governing steering control rearward displacement, the collapsible steering column required for 1968 models.

The last series being used up to this time is the 300 range, or postcrash series. This series is to cover procedures and systems which increase the chances of survival in the event crash occurs. An example is Standard 301, which is on fuel tanks and specifies requirements for the integrity and security of fuel tanks.

Enforcement

The law requires that Standards be practicable and objective. There is the requirement then that Standards be developed from known engineering data

NATURE OF PROBLEM

MAGNITUDE

". . . A raging epidemic of highway death which has killed more of our youth than all other diseases combined . . ." (President Johnson)

ABSOLUTE

- 53,000 Deaths/Year
- > 10,000 Injuries/Day
- $10 Billion in Economic Loss Per Year

COMPARATIVE

LABOR DAY WEEK-END 1966

- 29 Killed in Vietnam
- 635 Killed on Highways

1900-1967

- > 1.5 Million Killed
- Nearly Three Times War Toll

CAUSE OF DEATH

- Leading Form of Accidental Death

FIGURE 1

SUMMARY OF MAJOR AREAS OF RESPONSIBILITY

National Traffic and Motor Vehicle Safety Act	Highway Safety Act
Title I	
Establish Appropriate "Federal Motor Vehicle Safety Standards"	State Highway Safety Programs
Standards Are to Be Practical	Uniform Program Standards
Objective	Governor Is Responsible
	Local Involvement
	Matching Funds
Needed for Safety	Highway Safety Research and Development
Conduct Research, Testing, Development and Training	
Advise, Assist and Cooperate With Public & Private Organizations	
Enforce Standards	
Defect Notification	
Title II	
Tire Safety Standards and Labeling	
Title III	
Accident and Injury Research and Test Facility	
Title IV	
National Driver Register	

FIGURE 2

rather than supposition. This focuses attention on the monumental research programs which must be undertaken to develop reliable and significant criteria. Standards based on known needs but for which reliable criteria are unknown or undeveloped are not enforceable.

There have been several fine examples of government-industry cooperation and good faith in the Standards setting process in the one year of operation.

CRASH SEQUENCE CLASSIFICATION

Phase	Sequence	Objective	Illustrative Problems
Pre-Crash	1. Selection & Development	Prevention	• Drunken Driving
	2. Operating		• Road Maintenance
			• Mechanical & Medical Factors
Crash	1. First Collision	Amelioration	• Crash Design: Vehicle and Highway
	2. Second Collision		• Safety Helmets
Post Crash	1. Signal Generation	Salvage, Human and Property	• Rapidity & Quality of Response
	2. Signal Receipt		• Extraction From Vehicle
	3. Response-Dispatch-Arrival dent Scene		• Removal of Debris
	5. Arrival at Medical		• "Accident" and Survival Analysis
	4. Leave Acci-Facility		

FIGURE 3

Standard 201—Occupant Protection from Interior Impact has as its purpose the lessening of serious injury when persons are thrown against instrument panels, seat backs, sun visors, arm rests, and knobs and handles during accidents—the so-called "second collision." This was an initial standard issued on January 31, 1967 to be effective January 1, 1968. The industry contested the standard on the basis that it did not allow needed lead-time since it dealt primarily with interior design for which tooling was impossible to provide in the time allotted. This Standard has been delayed by the Bureau and industry is working with deliberate speed toward compliance.

Head Restraints

Standard 202—Head Restraints—To provide head restraints that are of major importance in reducing the likelihood of serious neck injuries sustained from rear-end crashes. I cite Standard 202 since some public and professional—medical and engineering—criticism was voiced when it was announced this Standard would be delayed.

The Council studied the Bureau's decision to delay Standard 202 and the reasons therefor. We were unanimous in our endorsement of this decision because data known at the time could not insure the Standards requirement be met: A strong "headrest" which would remain intact after the seat structure failed created a design dilemma. This emphasizes the need to treat the head restraint and the seat back to which it is attached in an overall and self-consistent manner rather than on a piece by piece basis.

Standard 208—Seat Belt Installations—requires

lap *and* upper torso restraint belts in each front outboard seat, and lap restraint belts in every other seating position.

Legitimate questions were raised as to adequate anchorage for the upper torso belts, and to the injury attenuation value from impacts at angles other than directly from the front and the rear. Empirical data indicated that neck injury of serious magnitude could be inflicted by the restraint itself from many side angle crashes.

The Standard as initially proposed has been modified to continue the requirement of lap belts but delay upper torso restraint until continuing research on occupant restraint systems can be evaluated.

I know that you will be interested to know that research is progressing on effectiveness and design of integrated seat structures. It is hoped that a "seat system" which incorporates all the known safety requirements for effective occupant restraints will overcome the objectionable features of lap belts and deficiencies in head restraints.

Research Methods

How is basic research accomplished that will develop the needed questions and answers? Here again we see the cooperative process of industry and government working together, but with the addition of another major fact-gathering source, private and public institutional research.

A major contributor to the field of crash-impact occupant behavioral patterns has been the University of California. Its Institute of Transportation and Traffic Engineering located on the Los Angeles campus has been carrying out actual crash research for years. The crash test facility under direction of Derwyn Severy is internationally respected for its accomplishments.

The photograph in Figure 4 was taken at the site when the Safety Advisory Council was in session there in June 1967. The Council members are studying results of the actual crashing of two 1967 Ford sedans.

The two vehicles are occupied by eight anthropomorphic dummies of varying sizes. Instantaneous reactions of machine and occupants are photographically recorded so that every movement can be studied and compared.

This is only one type of hundreds of in-service tests performed to prove reliability and develop data on which to base decisions and judgements. Research of this kind is not confined to institutional investigators. Vehicle, equipment and component manufacturers and new tire companies also put forth great effort.

FIGURE 4

Safety Advisory Council members study results of crash. Mr. Hall is at right, behind cars.

An example of a major development born of "in-service" crash research can be seen in this photograph. Note the totally demolished condition of the trunk compartment of the vehicle on the left. Compare it to the condition of the hood and engine compartment of the crashing vehicle, the one on the right, which has remained relatively undamaged. A basic design concept, I am told, by this manufacturer is now to have outer shell body components "soft" with a rigid frame back-up. The purpose is to utilize as much energy absorption as possible with the "soft" outershell before a violating object can penetrate the critical "cargo" compartment. The rigid frame back-up is the final protector of the occupancy ("cargo") space.

I am gratified at the type of research now being employed by the manufacturer. At this time I can report that the overwhelming majority are working cooperatively and in good faith. Great strides to more safety in new vehicles will be an early result.

Inspection

The motor vehicle is a piece of operating machinery. It is highly complex and subject, in far too many cases, to improper and poor maintenance. If the improvements by the manufacturer are not given proper and periodic attention, then no gains will accrue to highway safety. Far worse than no gains would be that the public could be lulled into the dangers of false security. Therefore, it is a serious and more lasting responsibility to which the service industry will fall heir.

Recognizing this danger the Congress in its wisdom wrote Periodic Motor Vehicle Inspection study requirements into both PL 89-563 and 89-564. It is on this one subject that the two laws, the Safety Advisory Council on Motor Vehicles and the Na-

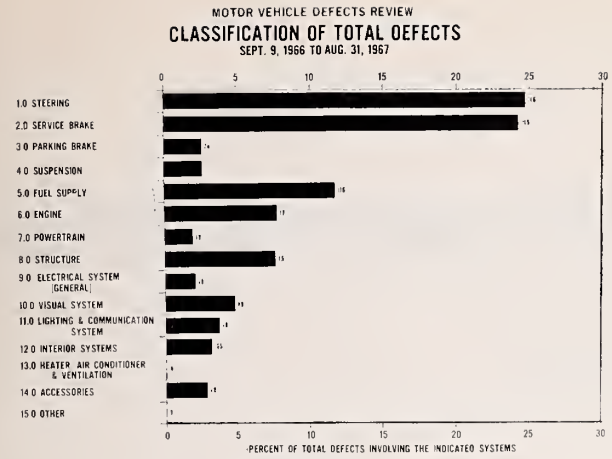


FIGURE 5

tional Highway Safety Committee have common bondage. The committee was created with PL 89-564 to advise the Secretary of Transportation and be consulted by the Secretary on local programs.

A comprehensive study on how much, or how little motor vehicle inspection is needed to satisfy safety needs has recently been completed by the Bureau. A mandate of PL 89-563 was that the Secretary shall deliver to Congress within one year after enactment of the law a detailed report setting forth motor vehicle inspection needs. This report was due in September 1967.

Follow-up action to the study and report was that within the next twelve months the Secretary "Shall establish uniform Federal motor vehicle safety standards applicable to all used motor vehicles."

This is the one requirement of the law that will eventually place a responsibility on all owners and service companies.

Service-Repair Standards

Statements about the legal responsibilities placed on the service-repair industry at this stage in the evolution of used car standards would be premature. The standards have not been determined at this time.

Empirical judgments can be made however, which indicate that the used car standards may be expressed in terms of vehicle inspection requirements.

Research contracts have been awarded by the National Traffic Safety Bureau to study the feasibility of computerizing automotive diagnostics.

Within the span of three years, I predict you will go to your local garage or car dealer and have your car diagnosed by a computer which may be located several hundred miles distant. Most likely, the analysis will be more accurate than you can now get.

The status at this time is that used car and inspection requirements will be the safety standards of the repair industry. To be able to perform with the necessary results, serious manpower training must be accomplished.

The service industry in Georgia is now in the second year of a registered apprenticeship program. To overcome the inertia of fifty years has not been easy. However, the program is now moving in the proper direction.

The repair industry has the advantage of sharing in the new vehicle manufacturers' experience. We know this is a lasting and needed program, therefore, we are moving in the direction of preparedness.

COMMUNITY MENTAL HEALTH TRAINING TO BE OFFERED

Ministers, policemen, teachers, probation officers, public health nurses, traditional mental health professionals, and members of numerous other groups in Georgia are potential trainees in a new training program in community mental health.

The program, a joint endeavor of the Georgia Department of Public Health, the Georgia Mental Health Institute, and the Department of Psychiatry, Emory University School of Medicine, will seek to train some 300 persons per year when it is in full operation.

Emory's Department of Psychiatry recently received a grant of more than $60,000 per year for three years, beginning July 1, 1967, from the new Continuing Education Branch of the National Institute of Mental Health. C. Downing Tait, M.D., associate professor of psychiatry, is training program director for the grant; R. Layton McCurdy, M.D., assistant professor of psychiatry and director of psychiatric residency training at Emory, is coordinating the recruitment of the teaching personnel for the program. The grant will support several new teaching staffers who will be authorities in the area of community mental health.

"The purpose of the program is to provide interdisciplinary training for a variety of professionals and non-professionals involved in community mental health work throughout the state," Dr. McCurdy said. "This training will be very helpful in the development of the comprehensive community mental health center program in Georgia.

Three types of training, either singly or in combination, will be offered: long-term part-time training at the Georgia Mental Health Institute on Briarcliff Road in Atlanta; short-term intensive training sessions at the Institute, and on-the-site training sessions in the comprehensive community mental health centers.

WHAT THE NEW SAFETY ACT WILL MEAN IN GEORGIA

Ben A. Jordan, *Atlanta*

On April 18, 1967, Governor Lester Maddox signed into law Georgia's Highway Safety Coordination Act of 1967. This Act created the Office of Coordinator of Highway Safety and Governor Maddox acted promptly in appointing a Coordinator. On April 20, Mr. Ben A. Jordan was named Coordinator of Georgia's Highway Safety Program.

Two Committees Formed

Two very important Committees have been organized to aid the Office of Coordinator of Highway Safety in carrying out a comprehensive highway Safety program. They are the Governor's Traffic Safety Advisory Committee and the Traffic Safety Coordinating Committee. A member of the Medical Association of Georgia and a member of the Georgia Optometric Association serve on the Traffic Safety Coordinating Committee.

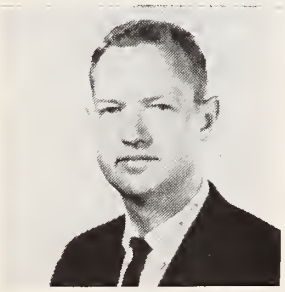
The Office of Coordinator of Highway Safety will act in an administrative capacity in carrying out a highway safety program. It shall be their objective to advise and assist the Governor in the formulation, coordination and supervision of comprehensive state and local highway safety programs to reduce traffic accidents, deaths, injuries and property damage within this state, to advise with and assist the various departments and agencies of state government concerned with highway safety programs and to coordinate and review, cooperatively, the programs developed by the various local political subdivisions, for the purpose of assisting them in preparation of their highway safety programs.

The Office of the Coordinator of Highway Safety will be concerned with implementing the National Highway Safety Act of 1966 and Georgia's Highway Safety Coordination Act of 1967.

The first Highway Safety Project Grant applications have just been mailed from the Office of Coordinator of Highway Safety to the various State Departments that are concerned with Highway Safety and to the political subdivisions in the State that have requested them. Highway Safety Grant Project applications will be mailed to each political subdivision of this State upon request. The Highway Safety Projects will be used to strengthen and upgrade the Highway Safety Programs throughout the State.

The Office of Coordinator of Highway Safety has, in cooperation with the various departments of State Government and the political subdivisions within the State, almost completed a ten-year needs cost study for carrying out Georgia's Highway Safety Program. In the near future they will be working on base year expenditures for Highway Safety Programs.

If you desire information about this program you may contact Mr. Jordan and his staff at 528 Hartford Building, 100 Edgewood Avenue, N. E., Atlanta, Georgia, Zip Code 30303 or call Area Code 404-577-4312, Atlanta, Georgia.



About the Author

Ben A. Jordan

Mr. Jordan has a background of experience that made him well qualified for the position of Coordinator of Highway Safety. At the time of his appointment he was Training Officer and Assistant Superintendent of the Police Academy at the Georgia State Patrol Headquarters in Atlanta. He is a graduate of the University of Georgia and also graduated from the Traffic Institute at Northwestern University in Evanston, Ilinois. Mr. Jordan began his career as a high school teacher in Royston, Georgia, and after leaving the field of teaching, began a tour of duty with the Georgia State Patrol as a trooper. He quickly moved up to Lieutenant and was only a few months away from being made Captain when Governor Maddox appointed him Coordinator of Highway Safety.

THE COLONEL CHALLENGES THE DOCTOR

Col. R. H. Burson, *Atlanta*

It has long been established that obtaining a driver's license is a privilege and not a right.

In an effort to reduce the shocking increase of traffic accidents and the resulting fatalities in Georgia, it is time we took a long, hard look at the current licensing procedures.

Georgia must have adequate procedures, and public support for these procedures, to prevent issuing a driver's license to a person who is not physically or mentally capable of operating a vehicle safely.

An eight-point program is being proposed in a traffic safety package that will be submitted to the Georgia legislature when it convenes next January. All of its features are vital to traffic safety, but what about the drivers who have physical and mental impairments? Who is to decide whether such a disability would mean an unsafe driver?

The medical profession has a tremendous responsibility in this area and it is not included in the proposed traffic safety legislation. Therefore, we must have the voluntary cooperation and assistance of every member of the medical profession.

The Examiner Is Limited

Our Driver Examiners, obviously, are not physicians trained in diagnostic procedures. The Examiner is limited to his experience and his good judgement to determine a person's driving abilities.

In the highest interest of public safety, indeed his own safety, each physician should take the responsibility to notify the Department of Public Safety whenever he has a patient with any condition that would reduce the person's ability to operate a vehicle.

I don't believe reporting such impairments should be considered a violation of the doctor-patient ethics. More importantly, it might mean saving one or more lives on the highway.

What we need to know when a person applies for a driver's license is whether he has frequent dizzy spells, epilepsy, black-out spells, defective vision, heart trouble or whether he is susceptible to severe heart attacks. These are things we cannot detect when the person applies for the driving test.

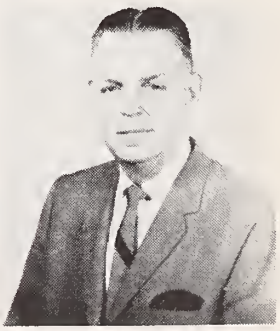
State institutions as well as the individual physicians should report any mental disorders which might affect driving or habitual alcoholics and users of dangerous drugs.

The Blind Are Driving

We have had actual cases of persons receiving state aid for being legally blind and at the same time they would be licensed to operate a vehicle. The new license with the holder's photograph on it has eliminated many of these instances; however, a more

About the Author

Col. R. H. Burson



Colonel R. H. Burson, Director of the Georgia Department of Public Safety, is a Georgia native who graduated from the old Bowdon College, now West Georgia College in Carrollton. He taught school for seven years and in 1939 joined the Georgia State Patrol.

He became Commanding Officer of the Patrol's uniform division, was made a Lt. Colonel, and appointed Deputy Director of the Department of Public Safety of Georgia. In 1963 Gov. Sanders appointed him Director of the State Board of Corrections and in January 1967 Gov. Maddox named him to head the Department of Public Safety and Georgia State Patrol.

Col. Burson is chairman of the Georgia Law Enforcement Council and a member of the Executive Board of the Southern States Armed Forces —Federal Regional Traffic Safety Workshop.

effective control could be maintained if agencies and physicians concerned would make immediate notification of such impairments.

In conjunction with the individual physician's notifying the Department, I recommend creating a Medical Advisory Board to review an applicant's previous medical history, prior driving record and, if necessary, have a personal interview with anyone who might be denied a license on the basis of physical or mental disability.

Such an arrangement probably would have to be on a voluntary basis and the appointments to the Board could be made through the state medical society.

The medical aspects of determining a person's ability to safely operate a vehicle are vital in removing the higher risk drivers from the highway.

We must ask ourselves whether we want to accept the appalling rise of traffic deaths in Georgia by not causing an inconvenience to these persons or are we willing to accept the hardships caused by refusing a driver's license and thereby bring about some decrease in our fatalities.

THE LATE JAY McLEAN OF SAVANNAH FEATURED IN EDITORIAL IN *JAMA*

Jay McLean (1890-1957), who discovered the anticoagulant heparin during his second year of medical school, is the subject of an editorial in the September 4, 1967, issue of the *Journal of the American Medical Association.*

The editorial gives an account of Dr. McLean's struggle for a medical education, his work in the laboratory of W. H. Howell at Johns Hopkins where his discovery was made, and his subsequent career.

This editorial is of particular interest to Georgians who knew Dr. McLean during his association with the Tumor Clinic in Savannah from 1949 until his death in 1957.

1967 CALENDAR OF MEETINGS

State

November 16-17—Obstetrics and Gynecology Seminar, College of Medicine, University of Florida, Gainesville, Florida.

December 4-7—Fourth Annual Postgraduate Course on Pulmonary Function in Health and Disease, L.S.U. School of Medicine, New Orleans, La.

January 9-10—Psychiatry in Clinical Practice, Medical College of Georgia, Augusta, Ga.

January 25-26—Perinatal Problems, Medical College of Georgia, Augusta, Georgia.

May 5-7, 1968—114th Annual Session of the Medical Association of Georgia, Town House, Augusta.

Regional

November 17-18—Southern Society for Pediatric Research, Howard Johnson Motel, Charlottesville, Va.

December 4-6—Southern Surgical Association, The Homestead, Hot Springs, Virginia.

National

November 17-18—American College of Cardiology, "Computer Applications in Clinical Electrocardiography," Sheraton Park Hotel, Washington, D.C.

November 19-22—Association of Military Surgeons of the United States, Sheraton-Park, Washington, D.C.

November 25-26—American College of Chest Physicians (Interim Clinical Meeting), Warwick Hotel, Houston, Texas.

November 26—Ninth National Conference on the Medical Aspects of Sports sponsored by the American Medical Association Committee on the Medical Aspects of Sports, Hotel America, Houston, Tex.

November 26-29—American Medical Association Clinical Convention, Houston, Tex.

November 28-30—Principles of Chemical Epidemiology, National Communicable Disease Center, Atlanta, Georgia.

November 29-December 3—American Medical Women's Association, Atlanta.

December 11-15—Advances in Medical Oncology, University of Texas Medical Center, Houston, Texas.

January 14-18—Society for Cryo-Ophthalmology, Second Annual Meeting, Miami Beach, Florida.

January 15-19—Neurology and the Internist, American College of Physicians Postgraduate Course, University of Miami School of Medicine, The Eden Roc Hotel, Miami Beach, Florida.

January 19-20—American Society for Surgery of the Hand, Palmer House, Chicago, Illinois.

January 19-20—American Rheumatism Association, Sheraton-Belvedere Hotel, Baltimore.

January 20-25—American Academy of Orthopaedic Surgeons, Palmer House, Chicago, Illinois.

January 29-31—Society of Thoracic Surgeons, Roosevelt Hotel, New Orleans, La.

February 6-10—American College of Radiology, Drake Hotel, Chicago, Illinois.

February 7-9—American Academy of Occupational Medicine, Marriott Twin Bridges Motel, Washington, D.C.

February 28-March 3—American College of Cardiology, San Francisco Hilton Hotel, San Francisco.

EMERGENCY CARE AND TRANSPORT OF THE INJURED

Roswell K. Brown, M.D.,* *New York, New York*

■ **The problems of disability and death from accidental injury are especially important because so many of the individuals involved are in the prime of life.**

MORE THAN ONE AND A HALF MILLION PEOPLE have been killed by traffic accidents in the U.S. since 1900. No one knows how many of the 100,000 accident deaths last year could have been avoided if there had been proper immediate care, nor how much hospitalization or how much crippling could have been avoided.

Ten Million Injuries

Each year there are over 10 million disabling injuries in the United States. In other words, serious injuries are happening at a rate about that of breathing —20 breaths a minute, 20 injuries a minute.

This field of service has much greater potential in terms of years of human salvage than all our work in cancer and heart disease and stroke. Let's face the question: "Are we best serving the present-day needs of the community or are we preoccupied with the problems of the past?"

We are accustomed to thinking of the so-called "second accident" in automobile collisions, but we have not paid enough attention to the third, fourth, and fifth accidents of faulty immediate care. The impact of the automobile is the first accident, the second is the impact of the human body against some injuring surface such as the windshield. This second accident we know can be prevented or made less severe by the use of seat belts. The third and fourth and fifth accidents occur when helpful but untrained aid workers fail to protect the patient from further injury.

Three Phases of Early Care

The early care of the injured has three phases:

1. By the bystanders. They may be very helpful in preventing further injury, especially if they have had Red Cross training.

Every samaritan is a Good Samaritan in the sense that he has good intentions. Unfortunately, an untrained or unintelligent samaritan may do more harm than good. We should do everything that we can to get as many citizens as possible to take Red Cross courses, basic and advanced.

2. By ambulance attendants who are capable of preparing accident victims for transport and then moving them without further injury.

3. By physicians and surgeons usually at the emergency department of the hospital.

There is little doubt that thousands of lives could be saved if all three of these essential phases of emergency care were upgraded to the best possible level.

How can you be sure that the citizens of your community get the best possible emergency care? What is the role and the responsibility of the physician in emergency care?

AMBULANCES

Ambulances are categorized as:

1. Emergency, for acute illness and injuries;
2. Nonurgent, for the transport of the ill and disabled.

Combination of these types of services may be expedient but this may compromise the quality of care. Rescue vehicles should not ordinarily be classed as ambulances. They are equipped for extraction of trapped victims.

This presentation deals with emergency services only.

* *Associate Director, Field Program, Committee on Trauma, American College of Surgeons.* *Supported by a grant from the John A. Hartford Foundation.*

Presented at the 113th Annual Session of the Medical Association of Georgia, Atlanta, May 1, 1967.

when he just can't sleep

Tuinal®

One-Half Sodium Amobarbital and
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supplied in ¾, 1½, and 3-grain Pulvules®

Tuinal helps wakeful patients fall asleep fast, stay asleep all night.

Indications: Tuinal is indicated for prompt and moderately long-acting hypnosis. It is not suitable for continuous daytime sedation.

Contraindications: Barbiturates should not be administered to anyone with a history of porphyria, nor should they be given in the presence of uncontrolled pain, because excitement may result.

Warning: May be habit-forming.

Precautions: Tuinal should be used cautiously in patients with decreased liver function, since prolongation of effect may occur.

Adverse Reactions: Idiosyncrasy, such as excitement, hangover, or pain, may appear. Hypersensitivity reactions occur in some patients, especially in those with asthma, urticaria, or angioneurotic edema.

Overdosage: C.N.S. depression. Symptoms—Depression of respiration and of superficial and deep reflexes, slight constriction of the pupils (in severe poisoning, dilation), decreased urine formation, lowered body temperature, coma. Treatment—Symptomatic and supportive (gastric lavage; intravenous fluids; maintenance of blood pressure, body temperature, and adequate respiration). Dialysis may speed removal of barbiturates from body fluids.

Dosage: 50-200 mg. (¾-3 grains) at bedtime.

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Ambulance services in the United States are characterized by diversity of organization and lack of coordination. Services are provided by such groups as police and fire departments, volunteers, welfare departments, morticians, hospitals, taxi companies, gasoline stations, and commercial ambulance companies. Morticians are still the largest class of ambulance operators in the U.S.

Since ambulances are in the general field of health, responsibility rests with the Department of Health.[1] It need not operate ambulances but it should provide general policies and surveillance. The state government relation should be limited to the provision of general policy and regulation.

Legal Aspects

The Joint Action Program of the Committee on Trauma of the American College of Surgeons, the American Association for the Surgery of Trauma, and the National Safety Council have made available a model ambulance ordinance or law. Forty-four of the 108 communities recently surveyed were found to have ambulance ordinances; some of them provided ambulance subsidies. Several states have ambulance laws which attempt to establish standards. Enforcement is poor. There is little public recognition of these important responsibilities.

In some parts of North Carolina, there are now legal requirements that ambulance services shall meet standards set by the County Medical Society. This is a promising development.

Business Aspects

There are practical advantages and disadvantages to each of the common types of ambulance organization:

Morticians finance ambulance services as public relations expenses and advertising. This is inappropriate. The care of the injured and the critically ill is too important to be a secondary, "loss-leader" activity of those whose primary function is the care of corpses.

Commercial ambulance companies must make a profit to survive so they are apt to overemphasize the financial aspects, especially in areas where there is competition.

Governmental groups such as *police departments* and *fire departments* can provide good service. However, their function is not primarily to provide a health service. Police ambulances, used for ordinary patrol duty, have great advantages because they are so quickly available at the scene of an accident. (Cobb County affords such service—ed.) Fire department ambulance services are advantageous in that fire fighters have ample time in their station for advanced training in emergency care.

A *volunteer group,* whether related to police work, the control of fire, or solely for emergency care, can provide good service if properly controlled. Although it is difficult, some volunteers provide constant high quality service, both day and night. In many areas the law exempts them from regulations. The financing of these groups is dependent on voluntary contributions and may not be adequate. Difficulties and inequities arise where volunteer groups compete with other ambulances that charge for services.

A single *hospital* can provide good service in an appropriate geographic area. If its area is too small and if other hospitals in the area also provide the service, it can be disorganized and uneconomical.

Monopolies

An important consideration in the provision of ambulance service is the question of franchise or monopoly. Neither a governmental department nor a nonprofit, voluntary organization, nor a private business responsible for the operation of ambulances can provide the service properly if faced with competition of other groups. In order to cover its service area efficiently and economically, an ambulance organization must have a monopoly. Companies competing with each other are apt to forget about high quality service. Ambulance competition in some areas has degenerated into speed-racing and violence. This monopoly must be under proper surveillance so that it does not become derelict in its duty through complacency or financial greed.

Financing

The financing of an ambulance service can be done by several methods. The essential feature is that the cost of maintaining a high quality service must be adequately covered. Most individuals can afford reasonable ambulance costs. If the patient is a ward of a governmental agency, this agency pays the cost for him. In areas where the economic level of the majority of the citizens is low, the cost of the

About the Author

Roswell K. Brown

Roswell K. Brown, Associate Director of the Field Program, Committee on Trauma of the American College of Surgeons, received his medical degree from Cornell University in 1926. Prior to taking this

position, he was assistant dean, co-ordinator of medical education for national defense, and clinical professor of surgery at the University of Buffalo School of Medicine. He was consulting surgeon at the Meyer Memorial and Children's Hospitals and senior surgeon at Buffalo General Hospital.

Dr. Brown is an honorary fellow of the Southeastern Surgical Congress, a member of the Society of Medical Consultants to the Armed Forces, and of the American Association for the Surgery of Trauma. He was admitted to Fellowship in the American College of Surgeons in 1933 and certified by the American Board of Surgery in 1944.

service is covered by a governmental department. Insurance coverage for ambulance services is said to be widespread, but instances of actual insurance payment of ambulance costs are hard to find.

The Essentials

The following are considered essential for proper organization and management of emergency ambulances:

1. Salaries of ambulance attendants should be sufficient to encourage competent workers to make this a life career.
2. Each community should have a central ambulance dispatch office.
3. There should be two qualified individuals on each emergency call.
4. During ambulance calls the crews should be in communication with the dispatcher and the hospital emergency department.
5. The character and quality of the pre-hospital care should be under the supervision of the emergency department of the hospital to which the patients are taken.
6. Upon arrival the ambulance personnel should render to the hospital emergency department accurate reports, oral and written, on each patient.
7. Each community should have an emergency care council composed of representatives of government, doctors, nurses, and ambulance personnel, with regular closed meetings for consideration of reports, complaints, and recommendations. The Savannah Jaycees have a Medical Emergency Project which may well result in a continuing council.

PERSONNEL

There are no over-all statistics available as to the number of ambulance attendants in the United States.

The number of personnel involved varies greatly with the various types of ambulance organizations. Full-time ambulance workers may be only in the realm of four to six per vehicle. But where ambulances are staffed by volunteers, there may be 120 trained attendants per vehicle.

In the city of Louisville, the entire police force may be counted as ambulance attendants. In general the safety and welfare of the injured citizen is somewhat proportional to the total number of trained ambulance attendants in the community.

There are no generally accepted standards for the competence or the training of ambulance attendants. They range from illiterate apprentices to specially trained registered nurses, and from poorly paid ambulance employees to prosperous public-spirited volunteers who donate both time and money.

Ambulance Accidents

The importance of personnel qualifications is evidenced by the fact that in our Field Program survey 55 of 103 communities (total population of 23,220,000) indicated that they had had accidents involving ambulances within the previous three years; a total of 284 accidents which were caused at least partially by a moving ambulance. There was a total of 150 people injured, one spinal cord severed, and 10 people killed. These figures correspond fairly well with the National Safety Council compilation in 1961 of ambulance-caused accidents in four states and three large cities.

Many volunteer ambulance squads and some private ambulance companies have highly motivated and trained personnel who render excellent intelligent service.

Training Standards

Requirements and standards of ambulance attendant training are difficult to achieve because so many different types of individuals are involved.

Training courses for ambulance attendants are conducted by committees on trauma, various medical and surgical societies, medical schools, universities, colleges, health departments, police and fire departments, departments of education and others. There is no standard or uniformity in these ambulance attendant courses except that many require as pre-requisites the basic and advanced Red Cross courses and many include additional instruction by physicians in:

1. Emergency childbirth;
2. Cardio-pulmonary resuscitation;
3. Management of psychiatric emergencies.

There are at least a score of different books and brochures used as texts for Immediate Care courses. The Committee on Trauma of the American College of Surgeons has just published a manual edited by Dr. Robert H. Kennedy entitled "Emergency Care of the Sick and Injured—A Manual for Law Enforcement Officers, Fire-Fighters, Ambulance Personnel, Rescue Squads and Nurses."

The length of the training courses for ambulance attendants varies from one to five days. Some have

evening classes once or twice a week extending over a period of time. Two-year training courses for Emergency Medical Technicians are contemplated in some states. We need a respected paramedical profession like that of nursing.

Good ambulance attendants command and deserve respect. They have a thorough knowledge of the principles and practices of emergency care and an understanding of the dangers of moving patients without proper preparations and a mastery of the means of minimizing the emotional suffering which accompanies injuries.

Part of Health Team

We should treat ambulance attendants as part of our health team along with doctors and nurses. This means that we must confer with them professionally, advising and also listening to their advices. It is a wise policy to reserve adverse criticisms for private or closed sessions and to give wide publicity to commendation and praise. Such a policy tends to minimize the suffering and anxiety of patients and their families and it also tends to foster rapid improvement of services, because the faults are pointed out in private where anyone can speak up in defense of his actions or in complaints about others in an atmosphere of cooperation for improvement of quality care. This sort of constructive critical contact may well occur each time an ambulance crew turns a patient over to an emergency department staff. In some places periodic conferences are carried on for critical review of cases by and with physicians, nurses, and ambulance attendants. There is an excellent motion picture, entitled "Hands of Action," prepared by Dr. Jesse Meredith at Bowman-Gray School of Medicine, Winston-Salem, North Carolina, which shows a surgeon conferring with and advising two ambulance attendants.

Certification Rarely Required

Certification and licensure of ambulance attendants is rarely required; even where such standards are attempted, there is little recognition of the importance of those qualified to render immediate care.

The following standards are considered essential for proper ambulance staffing:

1. Attendants should be mature, stable, competent individuals devoted to and qualified for the immediate care of the injured.

2. All attendants should have at least the equivalent of the Advanced Red Cross First Aid certificates and also demonstrate competence in cardio-pulmonary resuscitation, transportation of the emotionally disturbed and emergency childbirth.

3. Each patient should be managed carefully, considerately, and respectfully, without undue haste and always with proper safety precautions. All stopping, starting, and turning of the vehicle should be accomplished gently.

VEHICLES

There are no standards for ambulance vehicles today in the United States. No automotive manufacturer produces from the assembly line a vehicle that can be termed an ambulance. Most ambulances and rescue units are produced by conversion companies. No common guide is utilized for the development of these units. Some of the squads in various communities have relied on local help to convert a truck into a unit to meet specific needs.

In the transportation of the sick and injured throughout the United States, three basic types of vehicles are presently used:

The Hearse

The hearse or some modification of it is the most prevalent form of ambulance in the United States. It is popular not only with funeral directors who provide ambulance services but also with private ambulance companies and volunteer squads. Hearse type vehicles are even used at some fixed military medical installations and other governmental agencies. They are capable of high speed, rapid acceleration and deceleration which are so harmful to critically injured and seriously ill patients. There is ample evidence that many lives are lost every year as a result of traffic accidents caused by speeding ambulances. The dangers to the passenger-patient from ambulance acceleration, deceleration, change of direction, and bouncing have not been carefully studied. There is no convincing evidence that lives are ever saved by vehicular speed. It is dangerous to use high-powered automobiles as ambulances because fragile patients may be killed by sudden starts, stops, turns, or bounces.

The Modified Truck

The modified cargo truck is a vehicle of choice with fire departments and some other rescue organizations. It is a truck designed to carry several patients, several rescue squad members, and various types of rescue and emergency equipment. They vary from a small panel truck to a large unit with much equipment for all types of rescue operations.

In some communities, psychiatric patients are transported in trucks like the ones used by police for criminals.

The Modified Station Wagon

The modified station wagon is the third type of ambulance. It is popular with police departments,

normally serving as a squad car that can be used as an ambulance if necessary. Such dual-purpose vehicles used by law enforcement personnel are the best means of bringing prompt and competent aid to traffic victims. This type of unit is designed for one patient and a minimal amount of medical equipment.

Criteria for Ideal Ambulance

Criteria for the ideal ambulance vehicle are as follows:

1. The ambulance vehicles should provide privacy, easy smooth loading and unloading, and gentle riding.
2. The exterior color should be standard on all ambulances. The vehicle should have a rotating beacon of standard ambulance color on the top.
3. There should be sufficient room for attendants to work on the patient in transit.
4. There should be a partition between driver and patient to protect the driver from mentally disturbed patients and to allow better visibility when driving at night with the patient compartment illuminated.
5. All windows in the patient compartment should be protected to prevent injury to a mentally disturbed patient.
6. The interior of the ambulance should be well insulated, paneled and upholstered in such a way that it can be readily cleaned and disinfected. All materials should be resistant to water, chemicals, and fire.
7. The patient area should have good illumination under the control of the attendant.
8. There should be good temperature control of the patient compartment, i.e., protection from extremes of heat and cold.
9. The electrical system of the vehicle should be adequate for radio equipment and other items that cause more than a normal drain of current.
10. Central suction and oxygen storage should be provided.

EQUIPMENT

There is no uniformity as to ambulance equipment. Surveys vary widely as to the current status of emergency vehicles with regard to the equipment carried and used. The North Carolina report of Cadmus and Ketner states that "only about 48 per cent of the vehicles are equipped to do all the procedures listed."[2] The Colorado report of Owens and Shaw states that of 52 ambulance services surveyed, "20 rate as poor, with nothing more than oxygen available."[3] Dr. Oscar Hampton says that only 174 of 900 communities report that the ambulances are sufficiently equipped to meet the minimum requirements set forth by the Committee on Trauma of the American College of Surgeons.[4]

Our Field Program questionnaires reveal that only 10 of 115 communities had ambulances carrying all the items on the list of Minimum Equipment approved by the American College of Surgeons.

Many ordinances list the required equipment, but in many instances it is not kept current and there is little, if any, inspection or check.

In order that ambulance services may save lives, prepare patients for transportation and move them carefully and safely, the trained attendant must be provided with the equipment needed for: easily correctible airway obstructions; respiratory and cardiac casualties; wounds and accessible hemorrhage; and fractures.

Equipment List

In January 1966 the Committee on Trauma of the American College of Surgeons revised its equipment list for ambulances as follows:[5, 6]

1. hinged half-ring lower extremity splint with web straps for ankle hitch;
2. two or more padded boards 4½ feet long and 3 inches wide and two or more similar padded boards 3 feet long and 3 inches wide, of material comparable to four-ply wood, for coaptation splinting of fractures of the leg or thigh;
3. two or more padded wood or cardboard splints, 15 inches long and 3 inches wide, for fractures of the forearm;
4. short and long backboards with 2-inch webbing straps for extrication of victims with spine injuries;
5. oxygen tanks and masks of assorted sizes;
6. a hand-operated bag-mask resuscitation unit with adult, child, and infant masks (a unit that can be attached to oxygen supply is preferred);
7. simple suction apparatus with catheters;
8. mouth-to-mouth, two-way resuscitation airways for adults and children;
9. oropharyngeal airways;
10. mouth gags made of three tongue blades taped together and padded;
11. universal packaged dressing, approximately 10 inches wide and 36 inches long, folded to 10 by 9 inches;
12. sterile gauze pads;
13. adhesive tape, 1, 2, and 3 inches wide, on cylinder;
14. soft roller-type bandages 6 inches wide and 5 yards long;
15. triangular bandages;
16. safety pins, large;
17. bandage shears; and
18. several pillows.

Air splints, inflatable by lung pressure, arm and leg sizes, were approved as useful for splinting fractures at and below the knee and at and below the

elbow. They are also said to be useful as pressure dressings to control hemorrhage but they are not included on the list of minimum equipment. All the distal parts of the extremity, hand or foot, should be included when pneumatic splints are used.

The items of useful equipment on this list have not been widely adopted because of lack of understanding of the dangers of moving the patient without proper preparations and the erroneous belief that it is always important to get the patient to the hospital as soon as possible.

Rescue equipment such as power tools and grappling hooks should not be carried by emergency ambulances.

Equipment Exchange

The Armed Forces use a system and standard equipment for the care of soldiers wounded in battle. With this military method, the patient stays on the original litter until he is either placed on the operating table or in bed. Such a system requires that the equipment of the hospitals and the ambulance be the same and interchangeable. When an ambulance delivers a patient on a litter with a splint and blanket, it should take from the hospital exchange equipment: one litter, one blanket, and one splint. Such exchange would be of great benefit to our civilian patients and save the time and work of all concerned.

A complete system of exchange cannot be adopted at once because of the great diversity of the equipment used. But there should be a *sufficient supply of each item to ensure that patients* will not be *disturbed or injured in order to return equipment to ambulances.*

COMMUNICATIONS

Communications and control are important in providing ambulances at the right time and place and in the coordination of patient care with the hospital.

Present ambulance communications systems in the United States are quite varied, including ordinary telephone service and various types of two- and three-way radio. Of 99 communities studied by our Field Program surveys, 64 have ambulances which have radio communications and 35 do not.

Usually the first trained individual at the scene of an emergency or disaster is a police officer. Easy and efficient communications between these officers and the ambulance headquarters and hospitals are needed. If the emergency is large, the telephone lines are apt to be jammed so that the best method of communications is by radio. Police and radio ambulance equipment should be able to intercommunicate easily.

Central Dispatch Office

It is essential for a good service that each community have a central dispatch office. In a small town, this may be the office of the only ambulance company. In a large urban community there may be a central office where incoming calls are received and ambulances are ordered out from stations located in various zones of the city.

Of 115 communities in our study, 59 have central dispatch and 56 do not.

Records should be maintained of incoming calls, of the dispatch of vehicles, and of the time when each vehicle returns to its station and is again free for service. The dispatch center should control the movement of the vehicles, keeping track of where the ambulances are stationed, which ones are available, which are nearest.

Whom to Call?

There is no uniformity of ambulance dispatching at present. When emergency care is needed the citizen may not know whether to call the police, the fire department, a hospital, a private ambulance company, a taxicab company, a volunteer squad, or a funeral parlor. A national ambulance number is needed, e.g. dial AMB for ambulance.

We can only state the need for an orderly ambulance communications system. The actual means to be employed should be worked out by communications experts in each community, with coordination regionally, statewide, and nationally. In any case, the ambulance should be in some sort of active communication with the dispatch center and the emergency department of the hospital.

Report to Hospital

Ambulance personnel should render an accurate oral report and also a written one to the hospital emergency department at the time of delivery of each patient including:

a) identity of the patient
b) time and place of pick-up
c) condition when first seen
d) management
e) significant changes in patient's condition.

SUMMARY

Accidental injuries should be a major concern of the medical profession.

Our ambulance services lack generally accepted standards of:

a) organization and management
b) personnel qualifications
c) equipment
d) vehicles
e) communications.

RECOMMENDATIONS

1. Cooperation must be maintained or re-established between ambulance personnel and hospital emergency departments. This can be done by:

a) Reports and records of the prehospital course of each patient;

b) Periodic conferences on immediate care for physicians, nurses, and ambulance attendants; and

c) Assignment of the same technicians to hospital and ambulance work.

2. Each community should have regular meetings of an *Emergency Care Council* which consists of important individuals representing ambulance services, hospitals, the police, the fire department, the Red Cross, the local unit of the Safety Council, the health department, and the medical society.

3. Each medical society should have a standing *Committee on Emergency Care.*

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—2 East 103rd Street

COBB COUNTY MEDICAL SOCIETY TO SPONSOR SYMPOSIUM ON HUMAN SEXUALITY IN MARCH

Dr. Calderone

Dr. Lief

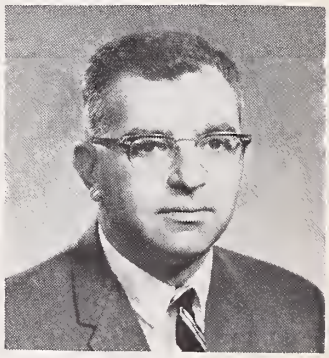
The Cobb County Medical Society, through its Committee on Medicine and Religion, will sponsor a symposium on "Human Sexuality" on Friday and Saturday, March 1 and 2, 1968. The symposium, to run from noon Friday to 4 p.m. Saturday, will be held at Kennesaw Junior College in Marietta.

This will be the third annual symposium sponsored by the Cobb County Medical Society for physicians, clergy and lawyers. Wives of physicians, clergymen and lawyers are invited and urged to attend.

Four prominent speakers will highlight the symposium. Mary S. Calderone, M.D., M.P.H., will speak on "Sex and Sexuality." Dr. Calderone is the Executive Director of the Sex Information and Educational Council of the United States. She is a member of the American Medical Association Committee on Human Reproduction and was formerly Medical Director of the Planned Parenthood Federation of the United States.

"Clinical Problems Involving Sexuality" will be the topic of Harold I. Lief, M.D. Dr. Leif is Professor of Psychiatry and Director of the Division of Family Study, University of Pennsylvania School of Medicine, Philadelphia. He is a member of the Board of Directors of the Sex Information and Educational Council of the United States, a past president of the American Academy of Psychoanalysis, and co-author of the book, *The Psychological Basis of Medical Practice.*

Dr. Hiltner



Dr. Slovenko

Seward Hiltner, Ph.D., D.D., will speak on "Counseling and Moral Changes Involving Sexuality." Dr. Hiltner is Professor of Theology and Personality, Princeton School of Theology, Princeton, N.J., and Consultant on Religion and Psychiatry at the Menninger Foundation in Topeka, Kansas. His books include *Pastoral Counseling, Sex Ethics and the Kinsey Reports,* and *Sex and the Christian Life.*

Ralph Slovenko, LL.B., M.A., Ph.D., will speak on "Sexual Behavior and the Law." Dr. Slovenko is Professor of Law and Behavorial Sciences, University of Kansas School of Law and Menninger Foundation, Topeka, Kansas. He is also editor of "The American Lecture Series of Behavorial Science and Law."

This program has been approved by the American Academy of General Practice for 7½ hours credit. Registration for this symposium will be $5.00 per person for the following groups and their wives: Clergy, Students, Interns, and Residents; and $10 per person for physicians and lawyers and their wives. The fee includes luncheon on Saturday.

Inquiries should be addressed to Noah D. Meadows, Jr., M.D., P.O. Box 506, Marietta, Georgia 30060.

COUNCIL HELPS KEEP YOU FROM KILLING YOURSELF

Ray Brokaw, *Atlanta*

WHAT CAN BE DONE to keep people from killing themselves? This is the problem which faces the Georgia Safety Council every hour of every day. The problem will probably never be fully solved, so therefore it is a constant challenge. The Georgia Safety Council was organized in November of 1966, and at a meeting of the Executive Committee in February of 1967, it was determined that the Council should concern itself with all phases of safety, but that it should deal first with highway safety, as this is the area where the greatest number of people are dying.

Driver Improvement Program

Practically the first thing accomplished was for two members of the staff to become qualified instructors of the National Safety Council's Driver Improvement Program. Both men took the necessary training so they may train others to become instructors in the course. So far, the Georgia Safety Council has been responsible for putting on the Driver Improvement Program in Cartersville, Macon, Waycross, Savannah, Washington County and Indian Springs. Other courses are planned soon for Athens, Albany and Valdosta.

A Safety Library is being established by the Georgia Safety Council so that member organizations may borrow materials for use in promoting safety in their plants and communities. Several films are available on highway safety, and another one features office safety. In addition, there are printed materials available to be loaned out from the Council offices.

In working in the field of accident prevention, the Georgia Safety Council aims to be the focal point in Georgia for the dissemination of safety ideas and information, as well as the coordinating agency for safety programs. It seeks to work with all organizations to promote a safer Georgia.

The Georgia Safety Council is playing an active role in working with the Legislative Traffic Safety Study Committee, the committee which developed the Traffic Safety Package for consideration by the 1968 Georgia General Assembly. A committee toured the state and conducted public hearings to generate citizen interest and support for the proposed legislation.

Teen Conference

The year 1967 was the Georgia Safety Council's first full calendar year of operation, and one of the activities in which it participated was the annual Teen Age Traffic Safety Conference at Dahlonega. In 1968, it is planned that this worthy Teen Age Program will be taken over by the Council as one of its main programs.

The Georgia Safety Council keeps in close touch in carrying out Safety Programs with many of the statewide agencies, such as Chambers of Commerce, the Georgia Municipal Association, the Chiefs of Police, Sheriffs Association, Medical Association, and many civic and professional organizations. The Council is also a close ally of the Atlanta Traffic and Safety Council which has been doing an outstanding job for a number of years.

Future plans for the Georgia Safety Council call for increased activity in the field of highway safety, plus developing programs in home, recreation and industrial safety.

The Council is not endowed. It is non-profit, non-political and non-governmental. It is supported by business, industry and foundations and private citizens throughout Georgia.

Ray E. Brokaw, Executive Vice President of the Georgia Safety Council, Inc., is a native of Mansfield, Ohio, and a graduate of A.T.C. College in Hollywood, California. He is also a graduate of the Institute of Management at the University of Georgia.

Mr. Brokaw was formerly Executive Vice President of the Griffin Chamber of Commerce and before that, Secretary-Treasurer of the Georgia Canners Association.

He is a member of the National Safety Council, the Association of Safety Council Executives, Inc., the Southern Region Safety Council Executives Association, the Georgia Highway Users Association, and the Georgia Chamber of Commerce Executives Association.

THE DOCTOR'S ROLE IN THE REDUCTION OF ACCIDENTS

Alex P. Jones, M.D., *Griffin*

THE INCREASING INCIDENCE of auto traffic accidents, injuries and deaths has become a national concern. The physicians have sought improved methods in the transportation of the injured, treatment of the injured and improved design of automobiles to protect the passenger from secondary injury. There is now a growing, active, concerted effort by physicians and medical organizations aimed at methods to prevent accidents on our highways through legislation and regulation as well as education.

Studies on traffic highway construction and marking, automobile safety, accident reconstruction, statistics and driver qualifications have permitted an analysis as to the cause of accidents and a logical orderly approach to the prevention of accidents. In most accidents there is more than one factor involved so that there is no one single solution to accident prevention. Since there is a combined cause of accidents involving the driver, automobile, highway and weather conditions, accident prevention must include solutions and controls of each contributing factor.

Drivers

Driver error accounts for practically every traffic accident. In analyzing the accidents caused by driver error, it is apparent that there are many factors involved: driving too fast, driving too slow, failure to heed warning signs, passing in a no passing zone, driving too close behind another car, failure to keep car in good mechanical condition, driving too fast for conditions of weather and highway, physically unfit to drive, driving without a license, and by far the greatest factor, driving under the influence of alcohol. In this era of individual rights without responsibility, driving is considered a right rather than a privilege so that the irresponsible, physically unfit and illiterate are given license to murder with the deadliest weapon, the automobile. Alcoholism is a mental illness which is often used as an excuse for criminal acts or negligence, and yet these people, knowing their illness, are responsible for taking the first drink. To allow the alcoholic to drive is like giving a child the keys to the car, for these people are immature, unstable and irresponsible. Modern traffic demands that the driver be alert, quick in response, able to see clearly with good judgment of distance, intelligent and responsible, and yet there are no evaluations made which will eliminate the driver who cannot meet the traffic demands, either on initial application or whenever physical changes occur that impair his driving ability. Until driver requirements are established with periodic re-evaluation, there will continue to be slaughter on our highways.

Highways

Highway engineers are the first to admit that highway construction and design has not kept up with traffic demands or traffic speed. While it may be desirable to rebuild and replace inadequate highways, present highways should not be neglected. No passing and warning sign placement should be made according to traffic speed to allow safe passing and adequate warning of traffic hazards to the driver who is unfamiliar with the road. Too often warning signs are placed too close to the hazard for the driver to reduce his speed safely. Passing areas should be in sufficient distance to allow safe passing without excessive speed. Minimum speeds should be established for all highways and strict enforcement is essential since many accidents are caused by drivers who impede traffic behind them.

Automobiles

Mechanical failure in new automobiles is rarely the cause of an accident but when it is the cause of accidents in older automobiles, it is the fault of the owner who has failed to maintain his car in good mechanical condition. Despite the cries of the sensationalists, the automobile manufacturers cannot design a car which will be foolproof, safe or durable.

Weather

Adverse weather conditions have contributed to accidents, but in actuality, the driver has failed to adjust his driving to changes in the condition of the highways caused by adverse weather.

Law Enforcement and Courts

The presence of patrol cars during heavy traffic periods has contributed greatly to lowering of accident rates on major highways; however, there are too few officers to adequately cover their assigned areas. This has meant that the law enforcement officer has spent more time investigating accidents rather than in accident prevention. Since the public has been apathetic toward automobile accidents, it is natural that laws, juries and judges have been lenient in their punishment of traffic violators.

Solutions

The physician is in a unique position to help prevent or decrease auto accidents through public education and influence in his community and through his legislators. As an individual or through his medical societies, he can speak out for needed changes in attitudes and the law. He has seen the results of auto accidents and is familiar with the reasons why they occur. Thus he can seek to bring about education, changes in the law and improvement in the many areas which contribute to traffic accidents.

Education

Traditionally, the physician has been a leader and teacher in his community and has been vitally concerned with the prevention of disease and injury. In the field of traffic safety, his services are needed and wanted by other groups who are seeking to reduce traffic accidents, injuries and death. The obvious place to start is to see that all future drivers are well trained by Driver Training Courses in high schools as required subjects. The doctor, through the medical society, can influence the School Boards by showing them the need and by assisting them in the establishment of such courses. Some courts have found that the poor driving habits of minor traffic violators can be improved by requiring them to attend courses in traffic training. The county medical society can work closely with the courts and through the National Safety Council and Medical Association of Georgia, in establishing courses in Defensive (Anticipation) Driving. As a speaker before PTA's and Civic Clubs, the doctor can arouse the interest of the community in traffic accident prevention.

Driver Licensure

The doctor is fully aware that not every person should be allowed to drive. Through his legislators and medical societies, he can endeavor to obtain the passage of laws which will prescribe minimum physical standards and periodic physical examinations. Physical changes which impair driving should be reportable to the licensing agency with protection to the doctor from possible law suit. All alcoholics must have their licenses suspended and those people arrested for being under the influence should also have their licenses revoked. People with certain mental illnesses should not be allowed to hold a driver's license. A driver's license (or a qualified chauffeur) must be required for the purchase of an automobile. Accident-prone drivers must be evaluated to determine their ability to drive. Illiterates should not be allowed to drive for if they cannot understand a law or sign, they cannot obey it. Well qualified drivers on the highways will markedly reduce the number of accidents.

Automobile Design

The automobile industry has sought to improve auto design by supporting such research projects as the Cornell Crash Study. Doctors were asked to cooperate and they willingly completed the information forms in order to assist in the evaluation of the causes of injury from crashes. Auto design is being improved but the people must be educated so that they will accept design changes. A method of required auto safety inspection must be developed to insure that all automobiles are in good condition and the tire tread is adequate.

Highway Improvement

Highways must continually be improved and repaired and the doctor can report to the proper officials any needed repair that he might see while he is on the road. The doctor is aware of dangerous sections of highways by the number of accident victims he may see. When this occurs, where there is an unusually high accident rate on a highway, he can endeavor to get his society to sponsor a warning billboard as was recently done in Spalding County.

The Physician in Court

Judges are willing to listen to any comment or suggestion offered by a doctor, and in most instances desire to do much more than prescribed by law in an effort to decrease auto accidents. The establishment of classes for first offenders will be given support by most judges. Not only should the driver's license be revokable, but also the court should have the power to confiscate an automobile in order to prevent driving without a license. The doctor who sees the re-

sulting injury and death from accidents caused by reckless drivers needs to speak out about needed changes in traffic laws. Too often, the drunk or negligent driver is not injured and his punishment is too light for the crippling or death of innocents. Responsibility and driving ability must be the requirement to obtain and maintain a driver's license.

Summary

The doctor holds a unique position in traffic safety for he not only ministers to those injured but also is respected as a teacher and a leader in civic affairs. He should not become so involved in the treatment of the injured that he loses track of the fact that he can do a service in the field of prevention. He can stimulate public and legislative apathy to seek changes in public opinion and legislation which will protect the public from the unsafe driver, the unsafe car and the miscarriage of justice. In order to make the highways safe, the doctor must take an active part in reducing the accidents on the highways by seeking stricter requirements for drivers and auto maintenance. Where he sees the existence of a dangerous situation or condition, he and his societies must be willing to actively endeavor to seek its removal.

—P.O. Box 741

NEW FILM: "CLINICAL EXPERIENCE WITH A NEW ANTI-HYPERLIPEMIC AGENT, CLOFIBRATE"

Continuing the search for an answer to an important medical question, "What is the cause of heart disease and how is it linked with hyperlipemia?" led to a symposium on clinical experience with a new anti-hyperlipemic agent, clofibrate. Held in New York City recently, it was sponsored by the Excerpta Medica Foundation.

The distinguished panelists, who have all made significant contributions to this area of medicine, included:

Roger Robinson, M.D. (Chairman)
Chief of Medical Division and Director of Research Laboratory, Memorial Hospital, Worcester, Massachusetts

David Brown, M.D.
Associate Professor of Medicine, Albany Medical College of Union University, Albany, New York

Thaddeus Danowski, M.D.
Professor of Medicine, University of Pittsburgh School of Medicine, Pittsburgh, Pennsylvania

Robert Furman, M.D.
Associate Director of Research and Head Cardiovascular Section, Oklahoma Medical Research Foundation, Oklahoma City, Oklahoma

Louis Krasno, M.D.
Director of Clinical Research, United Air Lines, San Francisco, California, and Assistant Clinical Professor of Medicine, Stanford University School of Medicine, Palo Alto, California

The symposium is available in a 32 minute, black and white sound film. This film will be of absorbing interest to medical groups, and will be gladly sent for showing, without charge. Interested physicians and medical groups may obtain the film by contacting, "Ideal Pictures," 135 Nassau Street, N.W., Atlanta, telephone 525-4706, or their local Ayerst Representative.

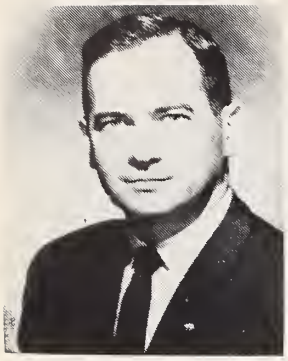
GEORGIA CIRCUIT COURSE 1967-1968

"The Care of the Unborn Infant" is the subject of the first of six postgraduate symposia in the 1967-1968 Georgia Circuit Course to be presented December through May by the Medical College of Georgia, the Medical Association of Georgia and the Georgia Academy of General Practice.

The program for "The Care of the Unborn Infant" includes lectures by C. Iverson Bryans, M.D., Professor of Obstetrics and Gynecology; O. Eduardo Talledo, M.D., Assistant Professor of Obstetrics and Gynecology; and George H. Nelson, Ph.D., M.D., Assistant Professor of Obstetrics, Gynecology, and Biochemistry at the Medical College of Georgia.

"The Care of the Unborn Infant" will be presented in Statesboro on December 5 at the Holiday Inn; in Valdosta at the Lowndes County Health Department on December 6; in Dublin at the Veterans Administration Center on December 7; in Marietta at the Kennestone Memorial Hospital on January 2; in Dalton at the Hamilton Memorial Hospital on January 3; and in Gainesville in the Lainer Room of the First National Bank Building on January 4.

The programs will be offered in eleven cities although all programs will not be presented in some cities. Each program will begin at 2:00 p.m. and contain four and one-half hours of accredited instruction. Advanced registration is requested. The advance payment fee for the course of six programs is $40.00; the fee for a single program is $10.00. Checks should be made payable to the Medical College of Georgia.



James L. Bentley, *Atlanta*

THE PHYSICIAN'S SUPPORT MIGHT CLINCH IT

As I said in one recent speech, being in favor of traffic safety is "like standing up for God, Motherhood, and Apple Pie." At the same time, it takes a good deal more courage to support specific legislative proposals such as driver education programs for all Georgia teen-agers, periodic re-examination of holders of drivers' licenses, a tougher motor vehicle inspection law, and an expanded state patrol for tougher enforcement of existing traffic laws.

Safety Costs Money

These things all cost money. They require legislative action and the spending of tax dollars. While everyone agrees on the need to cut down the fantastic and terrible number of deaths and fatalities in automobile accidents, there is perhaps less enthusiasm for programs which *do* cost money and which in some instances step on the toes of some citizens.

It seems to me that the doctors of our state can perform a tremendous civic service by taking a significant interest in these safety programs.

Take one good example—the "defensive driving" program.

This program is too little known, yet there is probably no quicker means of getting results and improving the quality of drivers and driving on our highways. This involves only an 8-hour seminar emphasizing safety techniques, common precautions, and developing techniques and skills to avoid accidents in any kind of traffic. The Georgia Safety Council and other safety groups in the state can arrange an instructor for any civic group wanting to offer this seminar. It is only a question of finding sufficient people interested in taking the course.

Doctors Should Take Course

It is my belief that every doctor should take this course and should recommend it to all his patients. We are already moving in this state to enforce tougher motor vehicle inspection standards, and the federal government has now set required manufacturing safety standards for automobiles. There is no program better able effectively and quickly to improve the skill of the drivers actually on our highways than this Defensive Driving course.

My grandfather once said that you should drive "like the other man on the highway was your enemy and out to kill you."

This is a dramatic way to put it, but this literally is the basis of defensive driving. A good driver can be taught to anticipate the ordinary mistakes and blunders made by other drivers—mistakes which frequently lead to disaster. If the majority of our adult drivers could be induced to take this training course, it would unquestionably reduce in sharp fashion the number of Georgia deaths and accidents.

This is why Georgia physicians—who so often provide constructive enlightened leadership in their communities—could perform an invaluable service in this state by offering real leadership in encouraging public support for traffic safety programs. Only broad citizen support over the state will create a climate in which the Georgia Legislature can take bold action to put safety programs into effect.

About the Author

James L. Bentley, Georgia Comptroller General and State Insurance Commissioner, is a native of Georgia and graduate of the University of Georgia. He also earned his LL.B. degree from the University of Georgia. In 1950 he became Executive Secretary to the Governor of Georgia at the age of 23.

He was first elected Comptroller General in 1962 and was reelected in 1966. He is a Past President of the Georgia Mental Health Association and will become President of the National Association of Insurance Commissioners next June.

As an example, Georgia is now forty-third among states in the percentage of students taking driver education courses. Only 16 per cent of the eligible students are now taking such programs.

The great tragedy in this is that so little action has been taken even when programs like driver education have been decisively shown to be successful in reducing highway fatalities.

Georgia's record of driver education is not a bright one. By comparison, Florida offers driver education already in 80 per cent of the public schools, and 79 per cent of the students eligible take the course. In North Carolina, all schools offer driver education to teen-agers and all eligible students take the course.

The need for action on such a driver education program in Georgia is made clear further by the fact that in 1966 drivers 24 years old and under made up 20.6 per cent of the country's drivers. Yet this 20.6 per cent of drivers were involved in 33.4 per cent of traffic accidents in the nation.

One problem in the past in offering a complete driver education program in Georgia schools has been lack of trained instructors. However, a special grant from the Georgia General Assembly in 1966 made it possible to train a number of instructors.

The Georgia Safety Council has estimated that the cost may be roughly $4 million to put into effect a program making driver education classes available to every eligible student in the state.

It is a sad commentary to realize that Georgia is the only state in the southeast which does not already have state financial support for driver education. This means that the whole burden of such a program rests on the local school systems, which is the principal reason why so few schools now offer the course.

Aside from the terrible loss of human resources involved in the high traffic death rate, the increasing number of deaths and injuries has also the inevitable effect of increasing automobile insurance rates.

Georgia's new open competition insurance rating law—in effect since July 1—has created more heated competition among insurance companies. This means that any reduction in traffic injuries would almost immediately benefit individual Georgians through reduced automobile insurance rates—another potential benefit of safety programs.

The problems involved in implementing a broad traffic safety program are clear. It cannot be done without legislative action, and this will simply not occur unless there are strong indications of effective citizen support throughout the state.

It is for this reason that it seems to me vital that Georgia physicians exercise their enormous potential for civic leadership by choosing to play a key role in encouraging support for these programs.

One by one the family's downed Because the G.I. bug's around

Parepectolin for quick relief of acute diarrhea
...soothes colicky pain with paregoric*
...consolidates fluid stools with pectin
...adsorbs irritants with kaolin, and protects intestinal mucosa

Whether it's a 24-hour "bug", a food problem, or simply nervousness and anxiety, Parepectolin will bring the diarrhea under control until etiology can be determined. In some cases, Parepectolin may be all the therapy necessary.

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IN THE GEORGIA GENERAL ASSEMBLY

ITEM I—DRIVER EDUCATION

A. Driver education classes will be made available in every public high school in Georgia. The course will meet standards based on the National Education Association standards for driver education courses.

B. Regulations and standards will be adopted for commercial driver instruction companies.

Background

A. Driver education has been established as one of the most effective tools in combating traffic accidents among young drivers. A series of studies over many areas of the country has proven this to be true. Among the most comprehensive of these was a study carried out in the state of Illinois where the records of every teen-age driver in the state (more than 516,000) were checked, and it was discovered that of the youngsters completing driver education courses, 56 of every 1,000 had been in a traffic accident while among those who had not had driver education, 111 of every 1,000 had been in a traffic accident. Similar figures are available from nearly all of the studies.

The major deterrent to having driver education made available in all schools has been the potential expense, and the problem of not having enough trained instructors. Due to a special grant in 1966, a substantial number of instructors have been trained, overcoming much of this part of the problem. Rough estimates indicate that the total cost of making driver education available to every eligible student in Georgia would be approximately $4,000,000 a year. Most states in the Union have a program under which there is state financial support for driver education. Georgia is the only state in the Southeast without such a financial support program, leaving the whole burden on the local school system, explaining why so few schools offer the course.

B. The highway safety program standard concerning driver education requires that "commercial driving schools are licensed and commercial driving instructors are certified in accordance with specific criteria adopted by the state." Georgia presently has no such standard, but copies of reasonable regulations for commercial driving schools which are now being used in other states are available and could be easily adapted to fill Georgia's need.

Periodic inspection of the commercial driving facilities to establish the quality of the courses should be conducted by the state.

ITEM II—IMPLIED CONSENT

Georgia should adopt the "implied consent law" to help curb the increasing number of drunk driving accidents. To properly benefit from this law, Georgia's existing statutes should be amended to authorize the use of modern, portable breath-testing equipment and to lower the level of presumed intoxication to .10 per cent alcohol in the blood.

Background

Recent research shows alcohol involvement in fatal traffic accidents to be much higher than previously presumed. Until the last two or three years, accident data based on police reports had established that

from 15 to 20 per cent of all fatal traffic accidents involved driving under the influence. However, during the past few years studies over the country have been based on the actual blood content of people killed in traffic accidents, causing the National Safety Council to revise its earlier estimates and to proclaim that *50 to 60 per cent of all drivers in fatal accidents have been drinking.* In a recent extensive study of fatally injured drivers in California, nearly three out of five were found to have been drinking prior to the accident. Blood samples made during the past two years by the Fulton County Medical Examiner in Atlanta show nearly 70 per cent of the fatally injured drivers tested had been drinking. This new evidence establishes drinking as the most often occurring common factor in fatal traffic accidents.

The most modern approach to driving under the influence is the "implied consent law." Twenty-seven states have now passed implied consent legislation.

Under the implied consent law, every driver is deemed, upon accepting his license, to have given his consent to submitting to a test for alcohol consumption if requested to do so by a police officer charging him with driving under the influence. Refusal to submit to the test carries a mandatory six-month driver license revocation.

The implied consent law has often been questioned as to its constitutionality, but this item was apparently cleared in 1966 by a United States Supreme Court Decision holding that a person could be required to give blood, breath, urine, fingerprints, etc., without infringing on constitutional freedoms. (Actually, the implied consent law does not require a person to submit to a test if he fears the evidence would be used against him in a criminal case, but only provides that refusal to submit results in license revocation.)

Georgia's existing law prohibiting the use of a breath test would make the implied consent law unwieldy, as facilities for drawing blood do not exist in many areas of the state. However, new, portable breath-testing equipment is available which is equally as accurate as the blood test. Several such testing devices can be carried in the individual patrol car and the test can be administered on the scene by a police officer. The officer can make a preliminary reading on the spot within one minute and can seal a chemical tube to be sent to the crime laboratory for detailed analysis. This technique enables the officer to identify the "two-beer" drinker as well as the "heavy" drinker. He can also tell if a suspect is suffering from a medical problem rather than intoxication.

One of the most appealing side effects of the implied consent law is that it both protects the innocent and identifies the guilty.

Georgia's existing law, setting .15 per cent alcohol as the level of intoxication, is considered antiquated and ineffective. The .10 per cent level has been recommended in the Uniform Vehicle Code and is being adopted now in many of the states. Although there is considerable variance in the number of drinks required to reach .10 per cent and .15 per cent based mostly on the individual's weight, scales have been developed which can offer a guide. For instance, the average 180-pound male would require approximately seven drinks within a reasonably short period of time to reach .15 per cent and five drinks to reach .10 per cent. A 120-pound female, on the other hand, would reach .15 per cent after approximately five drinks in a short period to time and would reach .10 per cent after three and one-half drinks.

The implied consent law has been introduced in Georgia for the last three years. It reached the House floor in 1966, when it lost by a vote of 89 for, to 78 against, lacking the necessary 103 majority.

The implied consent law is also one of the standards in the new federal highway safety program as is setting .10 per cent as the level of intoxication. The federal law also provides for a blood, breath or urine test to determine the alcohol content of the blood.

ITEM III—TRAFFIC COURTS

Georgia must strengthen its existing law to see that the provision requiring all traffic convictions to be reported to the Department of Public Safety is carried out.

Background

The Georgia Department of Public Safety reports that fewer than one half of the courts trying traffic cases in the state are reporting the convictions to the Department of Public Safety. This means that many drivers are acquiring records of frequent traffic offenses which are never appearing on their official records, making them exempt from license suspension penalties which are provided by law and denying to traffic courts trying these people in future cases the traffic violation background of these drivers.

Actually, Georgia's present law says that all such convictions will be reported to the Department of

Public Safety, and even offers a 25-cent incentive award to clerks for each traffic violation reported. However, there is no penalty provision for cases where courts refuse to report this information, and many do refuse. The reason for this refusal is basically that the local judges say they would prefer to administer license suspensions locally rather than permitting licenses to be suspended "arbitrarily" by the Department of Public Safety. (The court reporting requirement becomes more significant when considered in connection with the next item—establishing a point system.)

Undoubtedly, part of the hesitation on behalf of some courts to report their convictions is of a politically paternalistic origin. Some judges have commented that they "know the people" in their jurisdictions and wish to retain control of their constituents' driving privileges.

The highway safety program standard concerning traffic courts states that "All convictions for moving traffic violations shall be reported to the state traffic record system."

ITEM IV—POINT SYSTEM

A "point system" should be established in Georgia to provide a uniform and effective system of driver license suspension and revocation.

Background

Thirty-three states presently have point systems of either statutory or administrative nature. Florida, South Carolina and North Carolina are examples of bordering states with statutory point systems. The various systems vary as to the number of points awarded for different violations and the number of points requiring suspension, but they all follow the same basic pattern. The point system provides that serious driving offenses and minor driving offenses be given penalty points relative to the seriousness of the offense and that when a driver obtains a certain number of points, he forfeits his driving privilege.

Typical of the manner in which point systems work is the South Carolina program. South Carolina suspends the driver license for six months if a driver obtains 12 points within a twelve-month period. Such offenses as reckless driving, hit and run and passing a stopped school bus draw six points; while speeding, running traffic signals or stop signs, and unlawful passing are given four points; and illegal lane changing, failure to signal, following too closely, and similar offenses are given two points.

Georgia today requires a thirty-day license suspension (for which a license can be returned in ten days) whenever a driver has two moving violations within a six-month period. However, because of administrative and personnel limitations, in only a portion of the cases of two reported violations are licenses actually suspended. The determination of whether or not to suspend is made by Department of Public Safety personnel who attempt to weigh the seriousness of the two offenses.

The obvious advantages to having a point system which spells out rules and regulations for license suspension is that drivers will know exactly where they stand in relation to having their driving privilege suspended and that the severity of the penalty is in keeping with the severity of the offense. (When a point system is combined with mandatory conviction reporting, Item III, certainty and equality of punishment result.)

ITEM V—MOTORCYCLE SAFETY

A. Legislation is necessary to require that motorcycle operators in Georgia pass a special license examination to operate motorcycles, requiring proof of knowledge and ability to handle the vehicle.

B. Special equipment including an eye protector for the driver, a foot-rest for the second passenger, and a rear-view mirror should be required for all motorcycles.

Background

A. The number of motorcycles in the United States increased from 575,500 in 1960, to 1,914,700 in 1966. During this period the number of motorcycle deaths jumped from 731 to 2,160.

The above figures represent the sharpest increase in number of vehicles and traffic fatalities in a type of vehicle ever experienced in this country. It is due primarily to the tremendous increase in the light-weight foreign motorcycles. The rapid growth in motorcycles caught the nation unprepared and with antiquated statutes which cannot cope with the problem.

One of the chief difficulties is the fact that all licensed vehicle operators in Georgia are licensed to drive motorcycles as well as automobiles. Many motorcycle operators, particularly with rental motorcycles readily available, are beginning to ride motorcycles with no training and without knowledge of how to properly handle the vehicle.

Some of the increase in motorcycle deaths can be directly attributed to this lack of knowledge and ability. In one extreme case in Atlanta last year, a youngster who rented a light-weight motorcycle was shown only how to start it, and according to testimony of a passenger who jumped off, was killed shouting for someone to tell him how to make it stop.

Under this proposal, a special written test and a special road test would have to be passed by those seeking a license to operate a motorcycle.

It is important that the age for licensing operators of motorcycles, no matter what the size or weight of the motorcycle, should not be lowered below the present age of 16.

B. Georgia was fortunate to be the first state in the nation to adopt a law requiring motorcycle operators to wear protective headgear. New research on motorcycle safety equipment has indicated a need for expanding this motorcycle safety equipment to include an eye protector for the operator, a foot rest for each passenger and rear view mirror.

Both the special operators examination and the safety equipment above are included as part of the standards which should be met to conform to the National Highway Safety Act of 1966.

ITEM VI—DRIVER LICENSING

A. A driver must show proficiency to operate each general type of vehicle he is licensed to drive. This should include (a) two-wheeled vehicles, (b) automobiles, (c) van trucks, and (d) tractor-trailer units.

B. Each driver in the state must be re-examined for his license every four years. The re-examination would include at least a written and physical examination.

Background

A. As indicated in the motorcycle license proposal, Georgia now permits operation of all vehicles on one license. Although operators of large trucking units must show proficiency to engage in commercial operations, there are no such restrictions on those who might operate these units for their own use.

A recommendation in the national highway safety standard would have each driver obtain one license which would identify the type or types of vehicles he is authorized to drive.

A test to show knowledge and proficiency for each type of vehicle should be required.

B. It is unquestionable that hundreds, perhaps thousands, of licensed motor vehicle operators in Georgia are not currently physically able to operate a vehicle safely. Hundreds of thousands of the older drivers obtained their original licenses without being required to show any knowledge or ability, and have managed to retain their licenses until the present time. In addition, Georgia is in the unique position of being the only state which offers a lifetime driver license.

Modern traffic safety thinking advances the idea that it is even more important to periodically re-examine the driver than to periodically re-examine the vehicle.

The driver re-examination proposal would afford drivers an opportunity to brush up on the latest equipment, signs, signals, markings, traffic laws and new driving techniques. It would also provide a means of identifying the driver who is physically impaired and constitutes a hazard to others on the highways.

As in many of the items above, the new National Highway Safety Act provides for periodic driver re-examination. It specifies that the license applicant "is re-examined at an interval not to exceed four years, for at least visual acuity and knowledge of rules of the road."

ITEM VII—RADAR

Georgia cities and counties should be permitted to use radar to enforce speeding regulations in the same manner as the cities and counties in the rest of the nation.

Background

Due to "speed traps" being operated in some Georgia communities, in 1962 the General Assembly withdrew from Georgia cities and counties the right to use radar to detect speeding. At that time a National Safety Council official declared that this action alone could cause an increase of up to 100 traffic deaths a year in Georgia. Coincidentally or not, this marked the beginning of Georgia's stair-stepping increase in traffic fatalities. During the 12 years prior to 1962, Georgia's traffic deaths had remained reasonably constant despite a steady increase in the number of motor vehicles. The deaths fluctuated between 905 and 1,138 during this twelve-year period. Actually, the death rate per 100,000,000 vehicle miles traveled in Georgia dropped from 9.1 in 1950, to 5.9 in 1961. However, since early 1962 and the end of radar speeding detection, the number of deaths has climbed steadily from 1,011 to 1,603 in 1966, while the death rate per 100,000,000 miles of travel has reversed its downward trend and has risen to 6.7 in 1966.

Bills have been introduced in the legislature to undo the radar restriction for the past three sessions. The proposal to retain radar finally passed the legislature in 1967, but it was vetoed by the Governor.

The bill which was passed provided safeguards against speed-trap abuse including a requirement that radar could only be used on streets where the Division of Traffic Engineering and Safety of the State Highway Department has prescribed the safe speed limit, and that a case could not be made for fewer than ten miles per hour over the posted speed limit; that the radar units must mechanically stamp the speed the vehicle was traveling on the ticket; that the city or county must erect signs proclaiming radar to be in use not less than 500 feet from their jurisdictions and at least 300 feet away from any change in speed limits; that radar could not be used within 300 feet of a reduction in speed limits in a city, or within one-half mile of a speed reduction outside city limits, or within 30 days following a reduction in speed limits in the area, or on a grade in excess of seven per cent. If all other safety devices failed, a board composed of the Governor, the Secretary of State and the Attorney General were entitled to remove the right to use radar from any city or county.

In addition to other problems imposed on cities and counties, enforcement officials testify that the radar ban gives a psychological incentive to those drivers who would flagrantly speed. They state that the only alternative to using radar to enforce speeding is to get behind the speeding vehicle in a marked police vehicle and attempt to "clock" the speed of the front vehicle. Habitual and excessive speeders have learned that a constant eye in the rear view mirror assures them immunity from enforcement, whereas a driver with a less guilty conscience is more prone not to observe a police vehicle following him and is more likely to be ticketed.

It has been the conclusion of the past four Legislative Traffic Safety Study Committees that the return of radar to enforcement officers is vital to an effective highway safety program.

ITEM VIII—REFLECTIVE LICENSE PLATES

Georgia should adopt a fully reflectorized license plate to help reduce rear-end collisions.

Background

A series of studies on the use of reflective license plates shows a substantial reduction in the number of rear-end collisions at night where the reflectorized tags are used. Among those most often cited is a study by the Iowa Department of Public Safety showing that vehicles with reflective tags had 79 per cent fewer night-time rear-end accidents than vehicles without reflective tags. The Traffic Division of the Maine State Patrol compared rural accidents with parked cars after dark before and after the state began using reflectorized tags and found an 80 per cent reduction.

There seems to be little question as to the validity of the contention that the fully reflectorized tags will

reduce night-time rear-end collisions, particularly with parked cars.

A bill to provide reflectorized tags was introduced in 1967, was approved by the House Motor Vehicles Committee, but did not come before the full House for action. Apparently the major factor was cost. Preliminary studies indicate that the Georgia Prison System license tag production facilities could be converted to produce reflectorized tags. Therefore, the major cost increase would be in actual cost of materials. The reflectorized tags likely would cost from 25 to 28 cents each. This would be a little less than double the cost of the current tag. However, the potential reduction in rear-end collisions would quickly offset the increased production costs. Many states solve the cost problem by using a four or five year reflective tag.

AMA CALLS FOR VOLUNTEER PHYSICIANS FOR VIET NAM

The AMA Volunteer physicians for Viet Nam Program anticipates the need for 300 volunteer physicians during 1968. Current programming calls for the continuing recruitment of 32 volunteers every 60 days and as the need for specialists increases, it is anticipated that 50 volunteers will be required every 60 days.

The program is financed by the United States Agency for International Development and administered, under contract, by the American Medical Association. Physicians going to Viet Nam serve a 60-day tour of duty at one of the 21 provincial hospitals. The volunteer receives only his transportation and an expense allowance of $10.00 per day; otherwise his services are entirely voluntary.

More applications, especially from general surgeons, orthopedic surgeons, general practitioners and internists, are needed. Over 300 physicians have served in South Viet Nam since the program was started in July 1965 and six of these are from Georgia. They are: Edwin Brackney, Augusta; Bruce Caldwell, Augusta; Dan Callahan, Warner Robins; Charles Wike, Augusta; Charles Wray, Augusta; and Alexander S. Fitzhugh, Griffin. The Medical College of Georgia combined efforts with the Medical College of South Carolina to provide two general surgeons every 60 days during the past year.

SYNTEX INAUGURATES NEW SPEAKER SERVICE

A nationwide speaker service has been inaugurated by Syntex Laboratories, Inc. as a special service to medical and community organizations. Speakers are available to state and county medical groups for their programs or to accept speaking engagements arranged by these organizations or their members.

The speakers have been selected from field managerial personnel. The subject of their first program is the population explosion, which President Johnson has called "humanity's greatest challenge . . . second only to the search for peace." "Two's Company, Three Billion's a Crowd" comments on how a world which cannot now support its population of three billion must look forward to accommodating twice that many people by the year 2,000.

Speakers are available for day or evening meetings by writing or telephoning the Syntex Speaker Service, Public Relations Department, Syntex Laboratories, Inc., Palo Alto, California (415) 327-0110.

Syntex is an international company involved in the discovery, development, production and marketing of pharmaceutical, chemical and animal health products.

AMA PROGRAM ASKS DOCTORS TO SEND JOURNALS OVERSEAS

Doctors in the United States are being asked to send their medical journals, after they have read them, to colleagues overseas (Asia, Latin America, and Africa) who wish to have access to current medical literature but, either because of currency regulations or actual cost involved, cannot themselves subscribe to medical periodicals.

The direct "Doctor-to-Doctor" program, being sponsored by the American Medical Association with the collaboration of the World Medical Association to help alleviate the lack of current medical publications and to further international good will, will supply doctors in this country with the name, address and medical specialty of doctors in these areas who would like to receive journals (particularly specialty journals).

Doctors participating will mail the journals directly to their overseas colleague. Those willing to participate in the program should send their name, address and titles of journals they will contribute to Ada Chree Reid, M.D., Director, Doctor-to-Doctor Program, The World Medical Association, Inc., 10 Columbus Circle, New York, New York 10019.

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HIGHLIGHTS OF THE ACTIONS OF THE MAG COUNCIL MEETINGS, SEPTEMBER 23-24, 1967

This summary is being published so that the MAG membership may be advised in brief of the actions of the Association's Council and Executive Committee. It covers only major actions and is not intended as a detailed report. Full minutes of these meetings are available upon any member's request to the MAG Headquarters Office.

Atlanta Recommended for Site of 1972 AMA Clinical Meeting by the AMA Board of Trustees at their Board meeting September 22. The Chairman of the MAG Delegation to AMA, J. W. Chambers, presented invitations from MAG and Fulton County Medical Society to the AMA Board of Trustees which voted to recommend Atlanta as the site for the November 1972 AMA Clinical Convention. This recommendation will be acted upon by the AMA House of Delegates at the November 1967 Houston meeting.

Keogh-Type Retirement Benefit Plan for MAG members was approved in principle by Council as recommended and presented by MAG Insurance and Economics Committee Chairman Henry Jennings. This is a variable annuity plan under a trust arrangement established by MAG with the Prudential Life Insurance Company, to be administrated by James Poole and Associates, Inc., Atlanta. Data on this plan will be made available to MAG members for their investigation.

Georgia's New Title 19 Program effective October 1, 1967 was discussed by State Board of Health Chairman P. K. Dixon. Items reviewed included nine MAG policy recommendations made by MAG Executive Committee and transmitted by letter to Board Chairman Dixon; data on the State Drug Vendor Program concerning "open drug formulary"; Title 19 budget and Carrier for physician claims; continuation of MAG contract on Medical Assistance Recipients' hospital claims review with the Health Department until January 1, 1968; Title 19 claim form format; and "quality standards."

MAG-Military Medicare Contract Termination is still being held in abeyance pending a final decision by the Department of Defense on whether or not MAG may continue its contractual relation with the Department. MAG, under present contract extensions, will continue to function as Fiscal Administrator for this program until a final Department ruling is made.

MAG 1967 House of Delegates Actions were reported by Vice Speaker Harrison Rogers. Dr. Rogers stated that of 47 separate actions, all but four were completed or in the process of being carried out—and these four actions still pending would be disseminated by newsletter to the membership.

Central Billing of Dues by MAG was reported on by the study committee appointed for this purpose as suggested by the 1967 House of Delegates. The Committee recommended that Council take steps to institute such changes in the MAG Constitution and Bylaws to allow for Central Billing at the earliest feasible time. MAG Council voted "to approve the report of the Central Billing Study Committee and to refer the matter

to the MAG Constitution and Bylaws Committee for drafting appropriate changes in the Bylaws including alternative provisions as to whether or not county societies may elect not to be subject to central billing."

Georgia Regional Medical Program (Heart, Stroke, Cancer & Related Diseases) report of progress was given by GRMP Coordinator J. W. Chambers. It was stated that an "operational grant" will be requested December 1, 1967 effective July 1, 1968 and that GRMP would seek additional staff and office space in addition to the space being occupied at MAG Headquarters Office Building.

Georgia AMA Field Service Representative Mr. Richard Nelson announced that Mr. Gerald W. Blanchard will become the AMA Field Service Representative for Georgia effective October 1, 1967. Mr. Nelson was promoted to the position of "Program Development" for AMA Field Service. MAG Council expressed their sincere appreciation to Mr. Nelson for his past services to the Association.

History of Georgia Medicine project to be undertaken by two professors at the University of Georgia was approved by MAG Council providing there is no financial commitment at this time. MAG Historical Committee Chairman W. W. Osborne recommended endorsement of this project to assure MAG cooperation.

Appointments to the State Board of Health made by Governor Maddox from names submitted by MAG as received from District Medical Societies included: Second District—Frank McKemie, Albany; Fourth District—Richard Smoot, Decatur; and Seventh District—Earl McGhee, Dalton.

Sixth District Medical Society Donation to the MAG Education and Research Foundation was received with commendation. MAG Attorney John Moore reported on current status of the Foundation and emphasized that donations could be made for both general purposes and also for special purposes stated by the donor, as with "earmarked" funds. Council instructed MAG to publicize the Foundation to the MAG membership.

Other Items of Council Business included: Approval of an Allied Medical Science program for paramedical personnel training at Georgia State College; Information concerning a proposed MAG feasibility study on the need for a third medical school in Georgia; Report on Appalachian Health Care programs; Referral for immediate study the matter of third-party payments to physicians in teaching institutions under Title 19; Noting with sincere regret and sympathy the death of the father of Dr. M. C. Adair, MAG First Vice President.

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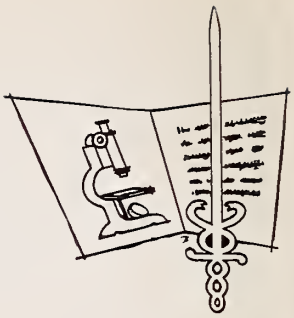
CANCER PAGE



NEW AND UNPROVEN METHODS OF CANCER TREATMENT

A. H. Letton, M.D., *Atlanta*

SINCE PROPER AND EARLY TREATMENT of cancer is a life and death matter, deviation from this disderatum is of concern not only to those organizations, both public and private, who are involved in the ultimate control of cancer; but it is also of great concern to members of the medical profession who are responsible for its diagnosis and treatment.

Unproven cancer remedies are as characteristic of the cancer problem as is the disease's capacity to kill; and are as old as the disease itself.

Fear of cancer is universal, and is more acute the closer one comes to the disease. Fear of the standard treatment by surgery or radiation is also such a fearsome thing that many victims are tempted to seek unproven or worthless remedies that proponents, by their cheerful optimistic approach, lead patients and their families to believe they can obtain a cure. Unfortunately many patients with curable cancer leave the care of competent physicians to be treated with worthless remedies until a cure by accepted methods becomes impossible.

One of the difficulties in combating purveyors of unproven methods of treatment has been the tendency of physicians to be disinterested and the willingness of many cancer patients to accept the word of a friend or neighbor, or other untrained persons who know someone who was supposedly cured or greatly improved, as authoratative.

Various agencies participate in the investigation of new claims of remedies, including the National Cancer Institute, American Medical Association, Federal Food and Drug Administration, U.S. Public Health Service, certain reliable research agencies such as Memorial Sloan-Kettering Cancer Center and independent scientifically trained cancer investigators—all working under specific standards of investigation.

Unfortunately, with most unproven remedies, it is difficult to secure the full cooperation of the proponents involved. Also added to the difficulty of initiating and carrying out a scientific evaluation is the likelihood that proponents of unproven methods will question the validity or refuse to accept the conclusions if the results of the study are unfavorable.

What then can be done about controlling unproven or worthless cancer remedies? There are three approaches—legislative, investigative and educational.

The most important legislative approach comes under the jurisdiction of the Food, Drug and Cosmetics Act. This agency's activities are directed toward promoting purity, standard potency, and truthful and informative labeling of the essential commodities covered by the Act. State legislation has been passed in seven states and stipulates that diagnostic and therapeutic means for cancer treatment be subject to scrutiny and scientifically sound.

The American Cancer Society's role to control unproven remedies involves the following objectives: (1) to develop means of dealing with claims for diagnosis and treatment of cancer that have no acceptable evidence of value; (2) to encourage investigation of unestablished claims through qualified organizations; (3) to develop and encourage both public and professional educational programs to give information regarding specific cases and a better understanding of the criteria for assessing merits of new claims; (4) to encourage physicians to provide adequate care of patients with advanced cancer lest they fall prey to "cures" with no proven merit; and to encourage physicians to keep careful records giving objective data of extension or improvement as the disease progresses under treatment.

The Cancer Society's files on this subject are constantly expanding and becoming more useful. Succeeding articles will pinpoint some of the more notorious unproven methods promoted for the cure of this disease.

340 Boulevard, N.E.

Dr. Letton is Vice-Chairman of the Committee on New and Unproven Methods of Treatment, American Cancer Society.

PSYCHOTHERAPY—WHAT IS IT?

Mark A. Gould, M.D., *Smyrna*

PSYCHOTHERAPY IS THE ART of treating mental and emotional disorders by removing or modifying existing symptoms. Hopefully through this process, the individual will experience growth and development of his personality. As he gets to know himself better, he experiences a reeducation on both an emotional and intellectual level. It is through this reeducation that he develops improved patterns of adjustment to life. A realistic goal of psychotherapy might be to help the patient make a more realistic and therefore a more mature adjustment to his environment.

Most therapists agree that emotional illness is, at least in part, an expression of a chronic state of anxiety and frustration. The anxiety is related to unresolved inner conflicts and unsuccessful ways of dealing with other individuals. Thus, the degree of success in treatment is related to the degree of the patient's involvement in the "process." The fact that the patient has seen a therapist for a given number of interviews does not necessarily mean he has been "in treatment." His involvement in the "process" is influenced by his suffering and by his faith in the therapist and the treatment method; therefore the personality of the therapist is important in the development of a successful therapeutic relationship. It is clear that the close confiding relationship between the patient and the therapist is healing in itself and the force which operates in all psychotherapy can only fully be appreciated through an understanding of the transference mechanism.

Almost every clinical physician does psychotherapy to some degree. Individual psychotherapy is a relationship between two people in which the patient reacts to the therapist with the only means he knows—his emotional patterns. These patterns are a matter for consideration and understanding by the patient and the therapist. It is in this relationship that the patient has an opportunity to learn to express emotions. Once he has learned to do this, his ability to express it elsewhere in his environment will increase. As the patient re-experiences his fears and his insight into them increases, he is able to see that his unconscious hates, desires and loves are not a danger to himself or others except as they influence his own ego, and call forth within it abnormal defense mechanisms and attitudes which disturb his interpersonal relationships. Thus, an important aim is to foster a patient's general personality growth. This will be accompanied by increased insight into his feelings and thinking. As his self-understanding increases, the image he has of himself will grow and he will feel greater ease in reacting more flexibly and appropriately to those individuals who are important to him. It is through this process of getting to know himself that he will become more accepting of himself as a person and experience an increase in his sense of self worth.

3180 Atlanta Street

Prepared at the request of the Sub-committee on Mental Health of the Medical Association of Georgia.

NATIONAL KIDNEY FOUNDATION PUBLISHES NEW KIDNEY BULLETIN

The first issue of a new professional bulletin titled "The Kidney," published by the National Kidney Foundation, has been sent to a nucleus group of doctors with an interest in kidney disease.

The editor of "The Kidney" bulletin is Solomon Papper, M.D., professor and chairman, Department of Medicine, University of New Mexico School of Medicine. Dr. Papper is chairman of the professional education committee of National Kidney Foundation's Scientific Advisory Board.

The first issue of "The Kidney" covers diet in Renal Disease authored by Eric Reiss, M.D. Future issues will consider: The Current Status of Dialysis by Gunther Schmitt, M.D., The Current Status of Transplantation by Thomas Marchioro, M.D., Renal Vascular Hypertension by Morton Maxwell, M.D., Post Obstructive Uropathy by Carl Goldsmith, M.D., and Anemia and Renal Disease by Allen Erslev, M.D. The subjects will be primarily clinical, although some key areas of basic science will be included.

Further information regarding this new professional bulletin can be obtained through the National Kidney Foundation, 315 Park Avenue South, New York, New York 10010.

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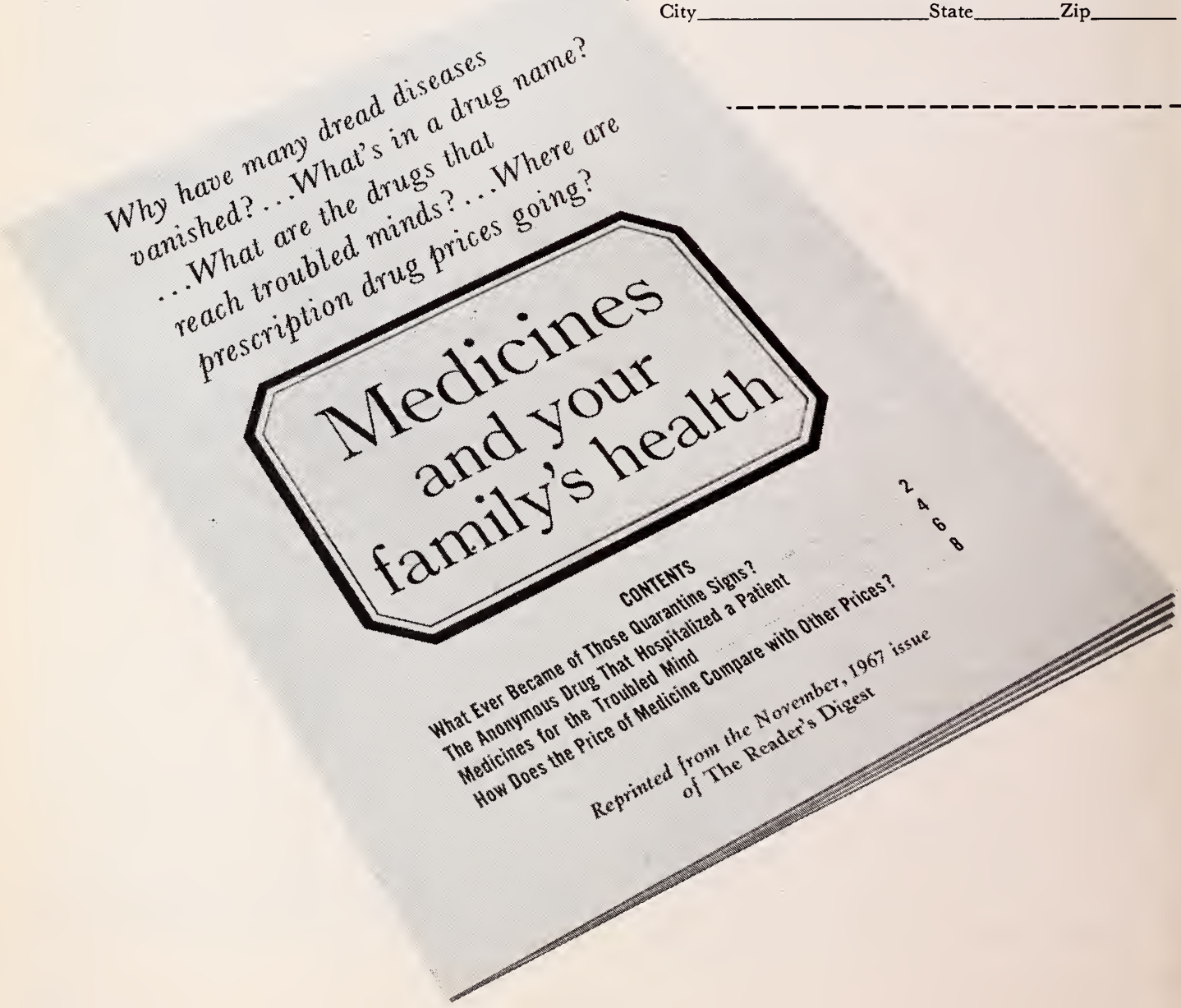

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"When I couldn't even smell corned beef and cabbage,
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JOURNAL OF THE MEDICAL ASSOCIATION Georgia

■ Although the antinuclear antibody test is useful as a screening measure, the final diagnosis of systemic lupus, rheumatoid arthritis and systemic sclerosis should be on clinical findings in the patient.

CLINICAL SIGNIFICANCE OF ANTINUCLEAR ANTIBODIES

Naomi F. Rothfield, M.D.,* *New York, New York*

THE PRESENCE OF ANTIBODIES against nuclei in sera from patients with systemic lupus erythematosus has been recognized for about a decade. These antinuclear antibodies have been demonstrated by a variety of techniques, such as precipitation with nuclear antigens,[1, 2] agglutination of betonite particles coated with DNA or nucleoprotein,[3, 4] precipitation with nuclear antigens in agar,[5] complement fixation tests,[6, 7] and the fluorescent antibody technique.[8, 9, 10] The test which is most frequently employed as a routine screening test today is the indirect fluorescent antibody test. This method has many advantages. It is possible to test many sera at one time; it is extremely simple to perform and is very sensitive. Since it is more sensitive, although less specific, than the LE cell test, the indirect fluorescent antibody test has been substituted in many laboratories for the LE cell test as a screening test for SLE.

Indirect Fluorescent Test

The indirect fluorescent antibody test is performed as follows. A source of nuclei is placed on a glass slide. (In our laboratory, a cryostat-cut section of mouse liver is used.) A drop of the patient's serum is allowed to incubate with the nuclei and then the slide is washed. During the incubation, the antinuclear antibody globulin becomes fixed to the nuclei. A drop of fluorescein isothiocyanate labelled rabbit anti-human γ-globulin is then allowed to incubate with the nuclei. The fluorescein isothiocyanate labelled anti-human γ-globulin becomes attached to the antinuclear antibody globulin which previously has attached to the nuclei. After washing, the slide is viewed under an ultraviolet light source. In the case of a patient's serum which does not contain antinuclear antibody globulin, there will be no attachment of globulin to the nuclei and thus, no globulin to which the fluorescent anti-human globulin can attach. Thus, there will be no fluorescent areas when the slide is viewed under ultraviolet light.

Variety of Patterns

When mouse liver sections are used as a source of nuclei, a variety of patterns of nuclear fluorescence are seen.[10, 11] The most common pattern is the diffuse or homogeneous one (See Figure 1). The speckled pattern is also frequently seen (Figure 2). The peripheral pattern is seen less frequently (Figure 3). The clinical significance of the patterns produced by sera from patients with SLE has been studied in our laboratory by correlating the clinical status and the pattern of nuclear fluorescence in 200 patients with SLE. All of the patients had multiple system disease typical of SLE and had a positive LE cell test at some time in the course of their disease. The degree of clinical activity at the time the study was carried out was graded from 0 or remission to 3+ or acutely ill patients. Patients without fever but with one system involvement (arthritis or rash. etc.) were considered to have 1+ activity. Patients

* *Dr. Rothfield is Assistant Professor of Medicine, New York University Medical Center, New York, New York, and Clinical Scholar, The Arthritis Foundation.*

Presented at the 113th Annual Session of the Medical Association of Georgia, May 1, 1967, Atlanta.

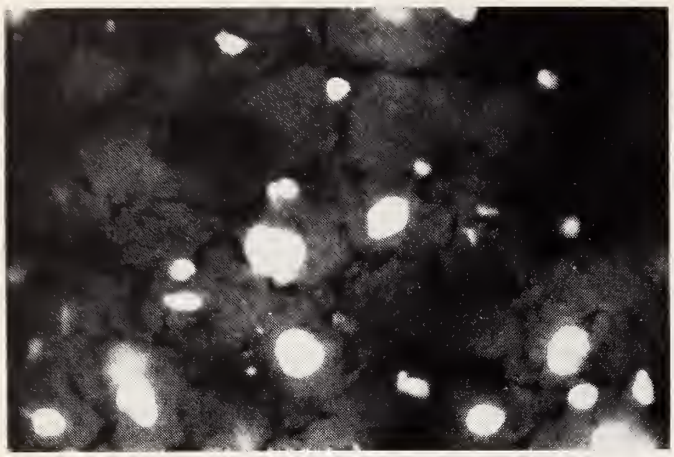

FIGURE 1

Diffuse pattern of nuclear fluorescence.

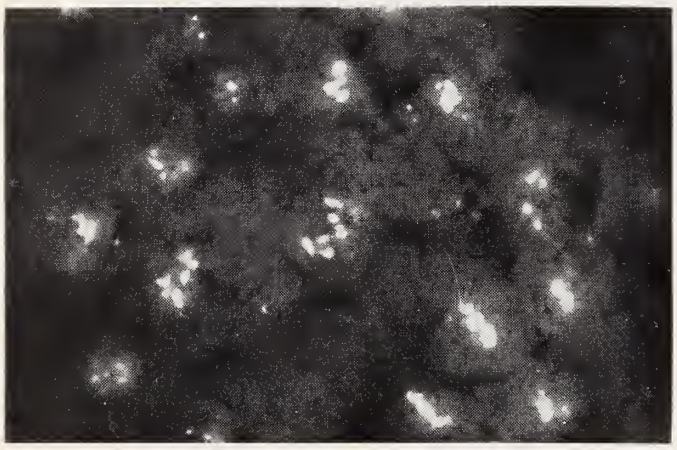

FIGURE 2

Speckled pattern of nuclear fluorescence.

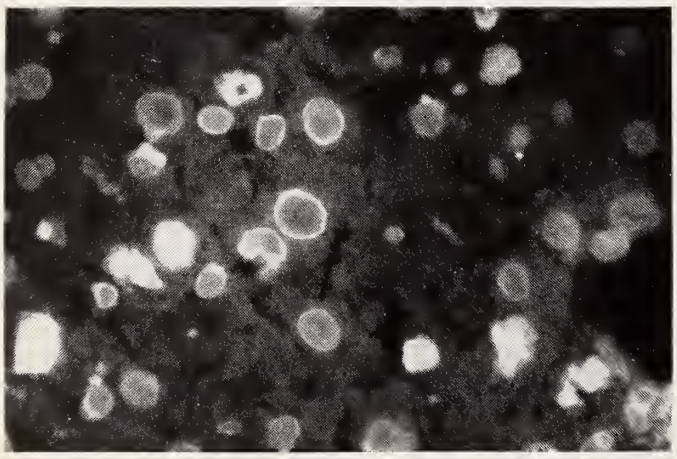

FIGURE 3

Peripheral pattern of nuclear fluorescence.

TABLE I

RELATION OF PATTERN OF NUCLEAR FLUORESCENCE TO DEGREE OF CLINICAL ACTIVITY

Degree of Clinical Activity	No. of Patients	Pattern of Nuclear Fluorescence Peripheral %	Diffuse %	Speckled %
0-1	100	10	75	15
2-3	100	90	10	0

with low grade fever and activity of one or more systems were graded as 2+. Blood was obtained from the patients, and all tests including an LE cell preparation were carried out on that sample of blood. The clinical degree of activity was determined at the time the blood was drawn. A positive LE cell test was found in only 60 per cent of the patients on the sample of blood drawn; however, antinuclear antibodies were present in all sera. The peripheral pattern was produced by sera from 80 patients. Ten per cent of these patients had Grade 0 to 1 activity whereas 90 per cent had Grade 2 to 3 activity (Table I). On the other hand, the incidence of the diffuse pattern was significantly greater among patients in remission than among patients with Grade 2 or 3 activity. We have also studied the effect of change in clinical activity on the pattern of nuclear fluorescence in the same patients. In nearly all instances, after clinical remission due to steroid therapy, the pattern of nuclear fluorescence changed from peripheral to diffuse.

The relation of the positive LE cell test to the pattern of nuclear fluorescence was clear in that the presence of LE cells closely paralleled the presence of the peripheral pattern of nuclear fluorescence. In most sera in which the pattern of nuclear fluorescence was peripheral, the LE cell test was positive on the same sample of blood.

Investigators Study Antigen

The nuclear antigen responsible for the pattern of nuclear fluorescence has been studied by a number of investigators. Casals, Friou and Teague were the first to show that SLE sera which gave the peripheral or shaggy pattern contained complement fixing antibodies to DNA.[12] Beck has reported sera producing the peripheral pattern which contained precipitating antibodies to DNA.[13] In a study of sera from 55 patients with SLE, Dr. David Stollar and I have confirmed these findings and extended them. Our data revealed that complement fixing antibodies to denatured and native DNA and to DNA-histone complexes were present only in SLE sera which gave the peripheral pattern of nuclear fluorescence. In addition, the peripheral pattern was removed by absorption of the sera with DNA or with nucleoprotein.[14]

The clinical significance of the presence of anti-DNA antibodies in SLE patients has been suggested by many investigators. These antibodies are present in patients with active severe disease.[3, 8] In our series, all patients with anti-DNA antibodies were acutely ill and all of the patients with hematuria and renal insufficiency had anti-DNA antibodies and the peripheral pattern of nuclear fluorescence.

The antigen responsible for the diffuse pattern has

been thought to be a nucleoprotein. The variety of proteins present in nuclei is vast, however, and the precise chemical nature of the antigen has not been determined. It has also been suggested that the diffuse pattern is due to a variety of speckled patterns which, when present together, give the appearance of a diffuse fluorescence.[15]

The antigen responsible for the speckled pattern has been identified as a glycoprotein.[16] The sera producing this pattern did not stain chromosomes from dividing cell cultures.[17]

Human antibodies have been found to belong to one of three major classes of immunoglobulins that can be distinguished from each other by antigenic differences in the heavy polypeptide chains. These are the IgG, the IgA, and the IgM globulins. The immunoglobulin class to which the antinuclear antibodies belong has been studied, and the results reveal that antinuclear antibodies in patients with SLE may belong to all three immunoglobulin classes.[10, 18] In a study of sera from 100 of our patients with SLE, 96 per cent of the patients had IgG ANF, 81 per cent had IgM, and 51 per cent had IgA.[10] Most patients had more than one immunoglobulin class of antinuclear antibody—that is, 50 patients had all three classes, and 27 per cent had IgG and IgM. One patient had IgG and IgA antinuclear antibodies. Eighteen patients had only IgG and four had only IgM. No correlation could be made between age, sex, race, disease duration and the presence of any class or classes of immunoglobulin antinuclear antibody. No correlation could be made between the presence of any one or two immunoglobulin classes of antinuclear antibody and the degree of clinical activity of the patient.

Sensitivity of Test Is Evident

The sensitivity of the indirect fluorescent antibody test is evident from this data. In our study of 200 SLE patients, there was a positive test in all patients including those in remission for many years. On the same sample of blood, the LE cell test was positive in only 60 per cent of the 200 patients. The LE cell test was positive in only 12 per cent of patients in complete remission whereas the indirect fluorescent antibody test was positive in all sera from these patients. The titer of antinuclear factor is lower in patients in remission than in patients who have active disease. It is helpful to follow not only the pattern of nuclear fluorescence but also the titer of antinuclear antibody in patients who are receiving therapy for acute SLE.

Antinuclear Factors in Other Diseases

The presence of antinuclear factors in diseases other than systemic lupus erythematosus has been recognized for many years. The incidence of antinuclear factor in rheumatoid arthritis, using the indirect fluorescent antibody test, varies from 14 per cent to 50 per cent.[6, 19] In a group of patients with rheumatoid arthritis studied in my laboratory, a positive test for antinuclear factor was present in 64 per cent of the patients.[20] A weakly positive test, using undiluted sera, was found in 14.5 per cent and a moderately positive test in 50 per cent. In general, the titer of antinuclear factor was considerably lower than that found in sera from patients with systemic lupus erythematosus. The presence of antinuclear factor in patients with rheumatoid arthritis did not correlate with disease duration, stage of disease or with the presence of rheumatoid factor. The diffuse pattern was observed twice as often as the speckled pattern. The IgM immunoglobulin class of antinuclear factor was present most commonly in sera from patients with rheumatoid arthritis.[20, 21] Of 44 patients with rheumatoid arthritis and antinuclear antibody, 26 had IgM as the only antinuclear antibody, eleven had both IgG and IgM, and only seven patients had IgG as the sole antinuclear antibody. Thus, sera which gives a weakly positive indirect fluorescent antibody test with a conjugate specific for IgM and gives a negative test with a conjugate specific for IgG is most likely to come from a patient with rheumatoid arthritis.

The presence of antinuclear factors in sera of patients with chronic discoid lupus erythematosus has also been well documented. In our laboratory 20 per cent of 100 patients with chronic discoid lupus erythematosus have had positive antinuclear antibody tests.[22] In nearly all instances, the titer has been low: the pattern was either diffuse or speckled. Beck and Rowall found antinuclear antibody using the same method in 35 per cent of their patients with discoid lupus.[13] In their series, antinuclear antibodies were more common in older patients and in those who had had the disease for a longer period of time or had more extensive skin involvement.

The antinuclear antibodies also occur in patients with systemic sclerosis. Sera from 48 patients have been studied in my laboratory in collaboration with Dr. Gerald Rodnan who has studied the patients' clinical manifestations.[23] Sera from 25 patients had a significant titer of antinuclear factor, and a positive test in a low titer was present in an additional twelve patients. In contrast to what is found in other diseases, the pattern of nuclear fluorescence produced by the scleroderma sera consisted of fine or large speckles which were present in all but two of the positive sera. The other two sera produced the diffuse pattern. There was no correlation between rapidity of progression of disease or disease duration and titer or pattern of antinuclear factor. The im-

munoglobulin class of antinuclear factor was similar to that found in sera of patients with systemic lupus erythematosus. However, the titer in most sera was lower than that of patients with systemic lupus erythematosus.

The incidence of antinuclear factors in other diseases is approximately 4 per cent. Some investigators have reported that a low titer of antinuclear factor is more commonly found in normal elderly individuals than in normal individuals of a younger age.[24] Similar findings of an increased incidence of rheumatoid factor in the aged have also been reported.[25]

Pattern Is of Extreme Importance

It is obvious that a report of the presence of antinuclear antibody should not by itself lead to a diagnosis of systemic lupus erythematosus. The pattern of nuclear fluorescence is of extreme importance if any clinical significance is to be attached to the result of the test. A peripheral pattern should be interpreted as extremely suggestive of systemic lupus erythematosus. The presence of a high titer of diffuse pattern, although not diagnostic, is suggestive of a collagen disease, and multiple LE cell preparations should be performed. A sera with a high titer of speckled antinuclear antibody suggests the presence of a collagen disease other than systemic lupus erythematosus.

Although the antinuclear antibody test is extremely useful as a screening test for SLE, the diagnosis of systemic lupus, rheumatoid arthritis and systemic sclerosis should be made on the basis of the clinical manifestations present in the patient. The presence of a high titer of a diffuse or peripheral pattern of antinuclear antibody, however, can be used to support the clinical diagnosis of SLE in a patient with multiple system disease.

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118 ATTEND RURAL HEALTH CONFERENCE

Total registration reached 118 at the Third Annual Rural Health Conference held October 20-21 at the 4-H Center at Rock Eagle.

Those in attendance reacted enthusiastically to a suggestion by Mr. William L. Lanier, President of the Georgia Farm Bureau Federation, that the Conference adopt a statement in favor of adding fluoride to water supplies throughout Georgia, and especially, calling upon Fulton County Authorities to add fluoridation to the water system in the county.

Many voiced opinions that the Conference was one of the best and offered suggestions in planning next year's program.

■ The authors were not able to duplicate the high proportion of successful cholangiograms reported in the literature by others.

PERCUTANEOUS TRANSHEPATIC CHOLANGIOGRAPHY

John N. McClure, Jr., M.D., and
John D. Martin, Jr., M.D., *Atlanta*

PERCUTANEOUS TRANSHEPATIC CHOLANGIOGRAPHY has been recommended as a means of differentiating jaundice due to extrahepatic biliary obstruction and that caused by hepatocellular disease. It has been implied[1, 2, 7, 8] that this is a fairly simple and accurate test, and, that in the presence of bile duct obstruction outside the liver, a needle can easily be inserted into one of the dilated intrahepatic ducts for the injection of contrast media. If the bile ducts are not dilated from obstruction, it is impossible to insert a needle into them; consequently, no bile will be aspirated and cholangiography will be impossible. The immediate complications of the procedure—hemorrhage and bile leakage, have been emphasized as an indication for surgical exploration in either case. To avoid drainage of bile into the peritoneal cavity through the needle puncture wound, some[2, 3] have advocated the placement of a polyethylene catheter into the bile duct at the time of initial puncture. Such a tube could be left in place until elective laparotomy is performed.

Other complications of the procedure include pneumothorax, pericardial injection of contrast media and bowel puncture. The latter is regarded as the least hazardous.

Technique Described

Being cognizant of the potential dangers of the procedure, a series of patients was studied in an attempt to evaluate it in our hands. Only jaundiced patients who were to be explored were selected for the study, and percutaneous transhepatic cholangiography was performed on the operating table immediately prior to laparotomy. Initially the technique described by Kaplan and co-workers,[7] and also by Arner et al,[1] was used with modifications. Under aseptic conditions a straight 16 or 18 gauge aortogram needle is inserted the appropriate depth through the mid axillary line beneath the costal margin or between ribs toward the hilum of the liver. The stilette is removed, and the needle is slowly withdrawn until blood or bile is obtained. Usually blood is first observed to flow from the needle, but on further withdrawal a free flow of bile will be obtained if the end of the needle traverses a dilated bile duct. The needle is never advanced without the stilette in place so that the needle will not be plugged with liver tissue. No more than six punctures are attempted before regarding the procedure as unsuccessful or impossible. After several patients had been studied, the approach with the needle was changed from the mid axillary line to the left para-xyphoid area. This direction was felt to be more appropriate and safer since the point of the needle would be directed away from the heart, great vessels and kidney. The potential dangers of lung puncture, however, remain with this approach. When a free flow of bile is obtained by either route, approximately 50 cc. is aspirated and equal volume of contrast media, usually 50 per cent Hypaque is injected. Roentgenograms are made immediately after injection and again five to ten minutes later. If satisfactory films are obtained, the contrast media is aspirated and the laparotomy begun.

Results

The procedure was attempted on twenty-three patients, and cholangiograms were obtained on fourteen. Four patients were found at laparotomy to have widely dilated bile ducts following unsuccessful

From the Joseph Brown Whitehead Department of Surgery—Emory University School of Medicine and Grady Memorial Hospital, Atlanta.
Presented at the 113th Annual Session of the Medical Association of Georgia, May 1, 1967, Atlanta, Georgia.

FIGURE 1

Cholecystogram obtained while attempting cholangiography. Note the presence of large stones in the fundus of the gallbladder.

FIGURE 2

Percutaneous Transhepatic Cholangiogram made by way of the lateral approach. Note the very large dilated common duct which ends in a smooth rounded convexity due to obstruction by carcinoma of the pancreas.

attempts at needle puncture. Five patients had intrinsic liver disease and no dilatation of the biliary system. A summary of this data is presented in the following tables:

TABLE I
AGE

40-49	50-59	60-69	70-79	80+
2	6	7	7	1

TABLE II
PERCUTANEOUS TRANSHEPATIC CHOLANGIOGRAMS

Attempts	23
Successful	14
Unsuccessful	4
Not possible	5

TABLE III
DIAGNOSIS IN SUCCESSFUL CHOLANGIOGRAMS

Carcinoma of pancreas	7
Metastatic carcinoma	4
Carcinoma of ampulla	2
Pancreatitis	1

TABLE IV
DIAGNOSIS IN UNSUCCESSFUL ATTEMPTS

Carcinoma of pancreas	3
Common duct stones	1

TABLE V
DIAGNOSIS IN UNSUCCESSFUL ATTEMPTS
—PATIENTS WITHOUT DILATED DUCTS

Cirrhosis	2
Cholecystitis	1
Metastatic carcinoma of liver	1
Common duct stones and mud with cholangitis	1

As can be seen, the most frequently encountered lesion in our series was carcinoma of the pancreas usually producing complete biliary tract obstruction in the elderly male. Carcinoma, either metastatic or ampullary, was the next most frequently encountered lesion, and pancreatitis giving ductal obstruction was found in one case. There was also one case of ductal obstruction due to stones in which unsuccessful attempts at cholangiography were made.

Radiographic Findings

Typical radiographic findings of different lesions are illustrated by the Figures shown. In general, obstruction of the common duct by tumor may produce a tapered "rat tail" configuration, a smooth convex outline, or a transverse termination of the contrast media. Obstruction by stones is more likely to produce a concave outline of the end of the common duct.

Obstruction of the common hepatic duct at or inside the liver due to metastatic tumor usually prevents filling of the ducts outside the liver as shown in Figures 5 and 7. Theoretically, on finding this situation one might consider resection of the left lobe of the liver and drainage of the biliary system into a limb of small bowel or stomach, if the extrahepatic ducts are not accessible.

On one such case it was possible to open the collapsed portion of the common duct below the cystic duct, and by means of retrograde dilatation the point of obstruction was passed and the long arm of a T-tube was placed up into the intrahepatic portion of the duct system. This afforded temporary drainage and symptomatic relief to this patient for a number of months. Cholangiograms of this patient are demonstrated in Figures 5 and 6.

No Significant Complications

Since all of our patients were explored immediately following the performance of the procedure, we encountered no significant complications. In one patient there was found to be appreciable bleeding from a wound in the vena cava which probably would have sealed off by itself had it not been uncovered by the surgical dissection. Multiple puncture wounds in the liver were found; usually there was a slight volume of free blood associated with them, but none were bleeding grossly at the time of exploration. There was slight bile drainage from some of the wounds.

In one patient with slight ascites, the contrast media was injected into the right subphrenic space (Figure 7). The needle was believed to be in a bile duct. At exploration approximately one half-hour later, a rather intense acute inflammatory reaction was found over the superior surface of the right lobe of the liver. There were no additional problems associated with this case.

Because of the experience with puncture of the vena cava and because of additional reports of complications being reported in the literature[4, 5] while our series was under study, our approach with the needle puncture was changed from the right lateral to the left para-xyphoid region as previously mentioned. Joseph[6] collected and reported most of the known complications of this procedure in his excellent article.

Summary

Experience in 23 cases of percutaneous transhepatic cholangiography has not given the high proportion of successful cholangiograms as has been reported in the literature by others. In 4 of 18 patients (22 per cent) it was impossible to perform the cholangiogram by percutaneous transhepatic route even though the bile ducts were widely dilated.

FIGURE 3

Cholangiogram with large dilated intra and extrahepatic bile ducts with the common duct cutting off sharply at the level of obstruction due to carcinoma of the pancreas. Note the tapering extended left hepatic duct well across the midline.

FIGURE 4

Percutaneous Transhepatic Cholangiograms made by the left para-xyphoid approach. Note the large dilated common duct tapering in a "rat tail" fashion at the intramural portion of the duct. Obstruction due to carcinoma of the pancreas.

FIGURE 5

Intrahepatic obstruction of the common hepatic duct due to metastatic carcinoma at the confluence of the right and left main hepatic ducts. Notice the dilatation of the left hepatic duct well across the midline and its possible surgical accessibility.

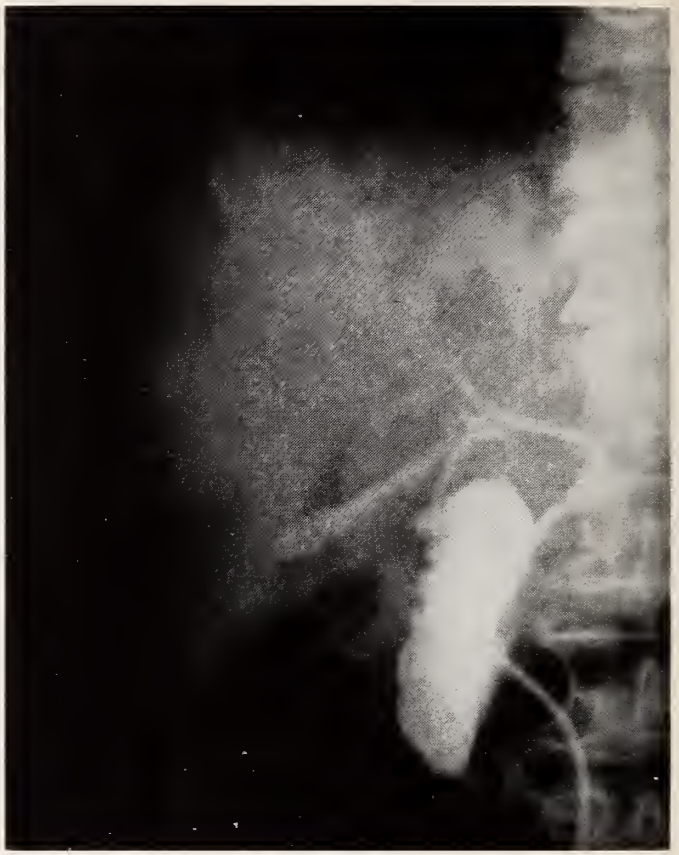

FIGURE 6

A T-tube cholangiogram after the dilatation of the carcinomatous structure shown in Figure 5 and the insertion of a long arm T-tube into the intrahepatic portion of the ducts. The collapsed gallbladder is shown extending just to the left of the main limb of the T-tube.

For this reason it is felt that this particular method is not an accurate means of differentiating obstructive and hepatocellular jaundice, and that questionable patients who do not have successful cholangiograms should be given the benefit of exploration. It is not recommended that this procedure be done in the x-ray room as a "simple" diagnostic procedure. The plan is to continue this procedure in the operating room immediately prior to laparotomy, in order to aid in localizing as well as assisting in the diagnosis.

Although we had no patients in our series with benign strictures of extrahepatic bile ducts, this method of cholangiography would theoretically offer many advantages in the preoperative localization of such lesions and should be helpful in the identification of the point of obstruction. Advantages of this method of cholangiography are also great in

FIGURE 7

Injection of the contrast media into the right subdiaphragmatic space by means of the left para-xyphoid approach. Subsequent cholangiograms were also obtained showing dilatation of the ducts in the right lobe of the liver. At exploration there was extensive metastatic carcinomatous involvement of the portahepatis and the liver substance. The common duct was never identified.

cases of intrahepatic obstruction due to either primary or secondary carcinoma as has been previously mentioned. A disadvantage of the procedure is the fact that occasionally it can be quite time-consuming without the production of useful information—namely, cholangiograms. As an alternative, particularly in patients with collapsed extrahepatic bile ducts found at laparotomy, transhepatic cholangiography may be attempted with more accurate placement of the needle in the region of dilated ducts. An evaluation of this approach is being done at this time.

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GaMPAC WORKSHOP RATED BIG SUCCESS

On October 14, the Georgia Medical Political Action Committee staged its first state-wide workshop in practical politics at the Regency-Hyatt House in Atlanta. Based on the theme "How To Win," a parade of political experts addressed the half-day meeting on a wide range of subjects designed to mark the beginning of the 1968 Congressional campaigns.

There were 117 registered participants in attendance from throughout the state. Guests also included Congressman Fletcher Thompson of Georgia's Fifth District and a representative of IMPACT, which is GaMPAC's equivalent in the state of Tennessee.

Featured speakers on the Workshop program included Edward R. Annis, M.D., Past President of the American Medical Association and currently a member of the AMA Board of Trustees; Congressman Benj. B. Blackburn, III, Fourth District of Georgia, who was keynoter for the Workshop; and Mrs. Frank Gastineau of Indianapolis, Indiana, a member of the AMPAC Board of Directors.

Also featured on the program were John P. Heard, M.D., who as Finance Chairman for the Blackburn for Congress Campaign of 1966 detailed the events that led to the cliff-hanging election of the Fourth District Republican newcomer; and J. Frank Walker, M.D., who somehow managed to make "Increased Membership Through Joint Billing" both interesting and humorous.

Earnest C. Atkins, M.D., Decatur, Chairman of the Georgia Medical Political Action Committee, presided at the Workshop. Dr. Atkins expressed the hope that the 1967 Workshop would be the starting point toward annual political workshops to be held by GaMPAC.

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A REVIEW OF CURRENT CONCEPTS REGARDING INTRACRANIAL SACCULAR ANEURYSMS*

Marshall B. Allen, Jr., M.D., *and* William H. Meeks, M.D.,** *Augusta*

Part III—Therapy

PROGRESSIVE IMPROVEMENT in the therapy of vascular lesions in all regions of the body has been reported during the past thirty years. The therapy of intracranial saccular aneurysms represents no exception; however, treatment of these lesions is still far from satisfactory. Alternate modes of therapy include carotid occlusion, plastic repair of the vascular defect and bed rest with hypotensive medications. Yet, we cannot predict with certainty the ideal form of therapy for any individual lesion even after we have it angiographically demonstrated. One of the objectives of the Comparative Study of Intracranial Aneurysms and Subarachnoid Hemorrhage, sponsored by the National Institute of Neurological Diseases and Blindness, has been to answer this question.

Carotid Ligation

Carotid arteries were ligated for various cephalic lesions as early as the eighteenth century. However, Sir Victor Horsley is credited with having operated upon the first documented case in which an intracranial saccular aneurysm was so treated.[6, 32, 44, 57] The aneurysm was discovered at the time of an intracranial approach to an assumed middle fossa neoplasm.

Many otherwise aggressive neurological surgeons continue to advocate ligation of the carotid artery as primary therapy for aneurysms of the intracranial portion of the internal carotid artery. Numerous variations in the preoperative preparation of the patient, technique of ligation, and in the site of occlusion of the vessel have been advocated.

Matas and Allen,[49] in 1911, described a series of experiments in animals in which they occluded arteries with temporary clips for varying periods of time in order to determine the degree of competence of collateral circulation. As an addendum to the report, a case was described in which they tested the competence of the collateral circulation of the carotid artery in a patient by applying an aluminum clip to the common carotid artery. The test has subsequently been modified so that externally applied digital pressure is utilized to occlude the carotid artery. One may gain some indication as to whether a patient will tolerate surgical occlusion. Unfortunately, tolerance of the test for five to ten minutes does not guarantee that the patient will tolerate permanent surgical occlusion of the carotid artery; indeed in Matas' first reported case the clip had to be removed from the carotid artery because signs of cerebrovascular insufficiency occurred several hours after the common carotid artery was occluded. Likewise, inability to tolerate the test does not necessarily prove that the patient will not tolerate gradual occlusion of the artery.[54] The examiner must be prepared to treat syncopy, convulsions and increased neurologic deficits when utilizing this test.[76]

Halsted,[31] demonstrated that application of metalic bands or ligatures tightly enough to occlude an artery produces lesions which may serve as the focus for a developing thrombus in the vessel.

Occlusion in Two Stages

Dandy[18] advocated occlusion of the carotid artery in two stages. He utilized fascia lata for the closure in place of the aluminum clips which Matas had used stating that living tissue produced less reaction. Dandy recommended the two-stage carotid occlusion to allow time for the development of collateral circulation. In earlier cases the two stages of

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** *From the Divisions of Neurological Surgery, Medical College of Georgia and Veterans Administration Hospital, Augusta, Georgia.*

his occlusions were performed four to six weeks apart, but he later reduced the latent period between operations to one week. Progressive lengthening of periods of digital compression of the carotid artery (as performed in the Matas test) was recommended by Hamby and Gardner in 1933[35] to encourage the development of collateral circulation. Mechanical compressors for the carotid artery have also been advised.[32, 36, 43]

Adjustable clamps which may be used to gradually occlude the artery were devised by Poppen and Blalock,[24] Selverstone,[52] and Crutchfield.[15] Each of these clamps is made up of a small adjustable jacket which is placed around the vessel, after which a removable screwdriver is attached. The handle of the screwdriver remains exposed. The clamp is gradually closed over a period of several days and the screwdriver is removed. Since recent studies have indicated that 79 per cent of ischemic neurologic complications occur within the first forty-eight hours,[54] our policy is to remove the handle two days following completion of the occlusion.

Complications May Still Occur

Gradual occlusion of the carotid arteries offers no guarantee that ischemic complications will not occur. Since it has been shown that blood flow in the carotid artery is not significantly changed until the blood vessel is 70 to 90 per cent occluded,[71] the question has been raised as to whether there is significant reduction in the ischemic complications when gradual occlusion is used. Tabulations from the Cooperative Study[54] show a 34 per cent incidence of ischemic symptoms when abrupt occlusion of the artery is utilized, whereas only 25 per cent of the patients had symptoms attributable to ischemia when the vessels were gradually occluded. However, Nishioka points out that these figures do not take into account the improving results of carotid ligation as the time increases following an acute subarachnoid hemorrhage. Since graded occlusion automatically delays the occurrence of complete occlusion of the vessel and since it has been shown that carotid artery occlusions several days following a major hemorrhage are less likely to produce ischemic symptoms than immediate occlusions, it may be that the differences are due to the delay in the time of complete occlusion.

Black and German[8] in 1953 stated that they did not "advocate ligation in the neck for aneurysms of arteries other than the carotid" and this policy has been followed in many neurosurgical centers. Pool and Potts[57] have subsequently supported this recommendation. However, Bakey and Sweet[5] demonstrated a generalized reduction in blood pressure in all branches of the internal carotid artery tested (down to 0.4 mm.) after carotid artery occlusion. They concluded that the degree of effect of carotid ligation in the treatment of aneurysms was approximately equal throughout the carotid tree.

The evidence that carotid ligation is effective in the treatment of aneurysms of the internal carotid artery seems clear. Its effect in treatment of lesions of the anterior communicating artery would logically appear questionable assuming the Circle of Willis to be intact. In a report by Odom, et al.,[55] of five patients so treated for aneurysms of the anterior communicating artery, one aneurysm was not visualized in subsequent angiography, two aneurysms were larger than before ligation and two aneurysms were smaller.

Reduction of Pressure Is Objective

The objective of carotid ligation is to reduce the intra-arterial pressure on the wall of the aneurysm and yet maintain adequate cerebral perfusion. There are large variations in the relative competence of the intra- and extra-cranial collateral systems. In one study in which the common carotid artery was ligated, flow reversed in the external carotid system in 42 per cent of cases thus supplementing blood supply to the brain.[72] If the occlusion is made at the level of the internal carotid artery, that blood flow which might have occurred as a result of back flow through the external carotid system will not be possible. In addition, the placement of a ligature on the internal carotid artery in the neck results in a long segment of stagnant blood in the distal segment of the artery, adding the hazard of embolus formation. Mount[52] reports that he has found greater protection against aneurysmal rupture but a higher incidence of complications when ligatures are placed about the internal carotid artery than when they are placed about the common carotid artery. We, as others, have a policy of placing clamps just below the bifurcation of the common carotid artery.

Plastic Repair of the Aneurysm

Carotid artery ligation as a form of therapy for intracranial aneurysms adds an occlusive lesion to a blood vessel wall defect. The ideal therapy is obviously a plastic repair of the blood vessel wall, or at least strengthening of the defect.[33] This form of therapy unfortunately has its limitations.

Jefferson[42] thought that he was the first to make a direct attack upon a saccular aneurysm although he was not fortunate enough to be able to accomplish his mission in 1927. Pool and Potts[57] state that Cushing packed an aneurysm of the internal carotid artery in 1926. However, the patient de-

veloped a hemiplegia and died. Dott,[21] in 1931, reported success in the treatment of an intracranial aneurysm by wrapping it with muscle. Dandy[17] in 1937 clipped the neck of an intracranial saccular aneurysm. Since that time obliteration of aneurysms has been the objective of neurological surgeons throughout the world. To accomplish this purpose, surgeons have used metallic clips, ligatures, packing, coating, and application of gauze to the lesion. Adjunctive measures for this direct attack upon intracranial lesions have included the use of hypothermia, hypertonic solutions, drugs, spinal fluid drainage, and hypotensive measures, either mechanical or chemical.

Vessel Clips Developed

Simple metallic clips similar to those described by Cushing in 1911[16] were applied in Dandy's first aneurysmal obliteration. Since that time modifications have been made in these simple clips by McKenzie, Smithwick, Duane and many others. Temporary clips have been developed by Gibbs, Olivecrona, Black and Green, Sedzmir, Schwartz, Mayfield and others.[56] Special modifications of clips include those recently developed by Smith and by Sundt and Murphy. These clips encircle the blood vessel constricting the aneurysm or occluding the vascular defect. These latter clips are especially adaptable for lesions of the internal carotid artery but have the disadvantages of requiring a critical vessel-clip circumference ratio and being inapplicable in areas with many blood vessel branchings.

Modifications of clip applicators as well as clips have been developed. Many of these clip applicators are quite ingenious, providing numerous angles for approaching vessels and closing clips in such a way that they cannot open or slip off the aneurysm.

The clips[16] which Cushing first described were handmade, being hammered out of silver wire which had been wrapped about a steel "pencil" with serated edges so as to form serations in the lips of the jaws of the clips. Most clips today are machine made resulting in standard sizes upon which the surgeon may depend. Many permanent clips continue to be made of silver. However, tantalum has been reported to cause less reaction and is used in the manufacture of some clips.[32] Stainless steel is used in the springs of some temporary clips and plastics are utilized in the manufacture of the tube-like Smith and Sundt-Murphy clips.

The major benefit of the silver clip devised by Cushing was its applicability in spaces which were relatively inaccessible to ligatures. Since aneurysms commonly occur on the great vessels at the base of the brain, this aspect is of great advantage to the intracranial vascular surgeon. Metallic clips have the added advantage of being radiopaque.

Ligature Application Methods

Simultaneously with the development of clips, ingenious methods of applying ligatures deep in small holes have been developed and special instruments devised for the purpose. Obliteration of the neck of an aneurysm by a ligature is still utilized by surgeons on occasion and proves to be an excellent means of therapy. One requirement of a ligature and a desirable feature for clipping an aneurysm is a well-formed constriction about the base of the aneurysm; however, some of the more recently developed clips may be applied to lesions with less distinct necks.

Muscle Packing

Cushing[16] and Horsley[37] independently recommended the use of muscle packing for hemostasis in 1911 and 1914, respectively. Dott[21] first reported its use in the treatment of aneurysms. Dandy illustrated the use of muscle packing in the treatment of intracranial aneurysms in his book in 1944.[19] It has since been used by many surgeons for lesions not amenable to therapy by clips or ligatures. The muscle is macerated and packed into the aneurysmal cavity or spread over the surface of the lesion. Pool and Potts[57] recommend securing the muscle by some mechanism when it is used. A theoretical advantage of its use is that thromboplastin of the muscle is released to mix with blood which may be present and augment the development of clot formation.[46] The clot as well as the macerated muscle tissue will eventually organize to produce a well-formed scar about the blood vessel defect. Although muscle packing is used when necessary today, most surgeons have reservations about its effectiveness. Pool and Potts[57] report that wrapping gauze about the lesion was found to be an effective form of therapy for intracranial aneurysms by Dott and Gillingham.

Plastic Coating of Aneurysms

Coating the external surface of aneurysms with plastics has received considerable attention in recent years. This procedure requires the use of a liquid or vaporized plastic which is non-toxic but which polymerizes rapidly to form a solid coat. It also requires that the weakest point (usually the fundus) of the aneurysm be completely exposed. The plastic material is applied with a brush or by spraying the surface of the lesion. Plastic materials which have been recommended for use on intracranial saccular aneurysms include methyl methacrylate,[22] polyvinyl, polyvinylidene chloride copolymer and epoxy polyamide resin,[64] methyl-2-cyanoacrylate monomer, alone or mixed with other plastics,[11] and silicone rubber.[73] The present authors have had personal

experience with methyl-methacrylate only in its capacity as a substance used for cranioplasty and with methyl-2-cyanoacrylate as an experimental adhesive to be utilized in the plastic repair of blood vessels.[13] In the latter instance we felt it was far too toxic to recommend it for therapy of intracranial aneurysms. This work confirmed that of Hoppenstein, et al.,[38] who demonstrated a high incidence of blood vessel dilatation associated with local tissue reaction when this material was applied. Other surgeons object to the plastic coating procedure on the basis that the most dangerous part of an intracranial procedure in the treatment of an aneurysm is dissecting the fundus of the lesion. One must denude the fundus of aneurysms which are being considered for coating more thoroughly than aneurysms being considered for clipping.

Clot May Help Prevent Rupture

Three other modes of attack upon intracranial saccular aneurysms have been introduced during the last decade. Each is based upon the premise that an organized blood clot inside the aneurysm may strengthen the wall of the lesion and reduce the chance of rupture. Gallagher[28] has reported the development of a pencil-size pneumatic gun which will shoot hog hairs into an aneurysm under direct vision. Of fifteen patients so treated, nine had evidence of thrombus filling the aneurysm, although two expired. Four patients showed evidence of incomplete occlusion of the aneurysm and three of these patients died. Two patients showed no evidence of thrombus formation and one of these died. The procedure, though still experimental, deserves further evaluation.

Mullan, et al,[53] have reported on twelve patients in which thrombus formation has been attempted by stereotaxically introducing an electrode into an aneurysm and inducing coagulation. Most of the patients in whom the procedure was attempted were severely ill prior to treatment. One patient expired following the procedure apparently of cerebral edema and five others had neurological deficits. These decreased in all but two. Follow-up angiograms in six patients revealed partial to complete opacification of the aneurysm with angiographic material in all cases. However, the procedure is intriguing. Much intracranial surgery is now performed stereotaxically and perhaps this represents a mode by which stereotaxis might be applied to the therapy of aneurysms.

Alksne, et al.,[3] have recently reported on experimental attempts to develop thrombi in blood vessels and, in three cases, to occlude aneurysms by placing a magnet next to the site where the thrombus was desired and injecting iron microspheres in the blood stream proximally. The magnet was introduced stereotaxically. Regarding the aneurysm cases, the authors simply reported that they had encountered no complications.

Adjuncts to Intracranial Surgery

There have been numerous adjuncts to intracranial surgery developed over the last few years, including improvements in pre- and postoperative management of the patients, improvement in instrumentation for craniotomy, etc. Three adjuncts which stand out most prominently in the therapy of saccular aneurysms are controlled hypotension, hypothermia and the use of hypertonic drugs to reduce brain volume. These three adjuncts will be discussed in this order.

Controlled Hypotension

Bleeding during the course of surgical procedures for intracranial aneurysms is a serious hazard. Hemorrhage into the base of a deep wound may obscure the surgeon's vision as well as rapidly deplete the patient's blood volume. Reduction of the intravascular pressure during surgical manipulation will reduce the likelihood of blood vessel rupture and reduce the blood loss once a vessel wall has been violated. Four methods of reducing the intravascular pressure have been recommended: bleeding the patient, thus producing shock which is treated by infusion later in the operation, deep or spinal anesthesia, ganglionic blocking agents and temporarily occluding the blood vessels supplying the brain or head.

Gardner[29] reported utilizing arterial puncture to reduce the blood pressure in a patient upon whom he was operating for a meningioma in 1946. He subsequently infused the patient's own blood. Many surgeons have since utilized the method recommended by Gardner or accomplished its objective by simply delaying infusion of blood until operative bleeding had been controlled. The principle is dangerous since shock results in peripheral vasoconstriction and may result in a reduction in tissue perfusion.

For anesthetic circulatory depression a potent anesthetic agent is administered until a lowering of blood pressure occurs by peripheral vasodilatation and/or by direct myocardial depression with reduction in cardiac output. This technique must be restricted to short intervals of moderate hypotension.

The mechanism of action of ganglionic or adrenergic blocking agents is that of reducing the peripheral resistance without increasing cardiac output. Bromage[10] recommended use of epidural anesthesia to reduce systemic blood pressure in 1951. This

allows continued perfusion in the areas blocked by the anesthesia; but if the sympathetic fibers to vessels supplying vital organs selectively remain unblocked, those organs will become ischemic.

This technique has been replaced by ganglionic blocking agents. The blocking agent most commonly used in surgery is trimethaphan (Arfonad). It is given intravenously in a 0.1 or 0.2 per cent solution, the speed of infusion determining the rate and degree of hypotension. Its action is partly through competition with acetylcholine at the cholinergic receptor in the ganglion. The onset of action is rapid and its duration is transient. Effect can be quickly reversed by the administration of a peripherally acting vasopressor.

Slack and Walther,[65] in studying cerebral circulation in induced hypotension with radioactive xenon gas, demonstrated that cerebral blood flow could be adequately maintained under anesthesia with simultaneously administered ganglionic blocking agents. Van Bergen[73] noted on EEG that at mean arterial pressure of 50 mm. Hg. (and below) no surface electrical activity was obtained in some cases. Abnormal EEG patterns of high voltage slow activity (delta waves) or periods of electrical inactivity depend on the speed of induction and on the degree of hypotension.[20] EKG monitoring during hypotensive states is essential, especially if there is a history of myocardial or coronary insufficiency. Changes in the rhythm and in the T-wave configuration and S-T segment are helpful in detecting myocardial ischemia.

Renal filtration decreases as arterial pressure is reduced. Morris, et al.[51] indicate that even though renal filtration remains depressed throughout periods of hypotension, the decrease in vascular resistance allows renal blood flow to return to normal or even above normal after an initial depression.

Enderby[23] found that for every inch the head is elevated above the level of the heart, the cerebral perfusion pressure is reduced 2 mm. Hg. in relation to the pressure at heart level. A critical level of pressure that maintains capillary perfusion has been determined to be 32 mm. Hg. Daw[20] feels that controlled hypotension, properly applied, offers definite advantages to the surgical procedure and is of benefit to the patient.

Localized hypotension within the cerebral blood vessels and even temporary cerebral circulatory arrest may be produced by occluding carotid and vertebral arteries in the neck. The intra- and extracranial anastomotic blood supply is so variable that one cannot rely upon a dry field in the event of aneurysmal rupture without occlusion of all four vessels. Although the carotid arteries may be effectively occluded in case of emergency by digital compression, one must expose the vertebral vessels to obtain effective occlusion and carotid artery occlusion is best controlled by this method. Ingenious techniques have been described for accomplishing these occlusions.[1, 2, 9] Surgical methods are still quite formidable, however; and when it is remembered that this procedure is being performed as a preliminary for a major intracranial operation, one realizes that it adds significantly to the surgical procedure.

Hypothermia

Credit for the early investigation of methods of clinical hypothermia goes to Fay.[26] The early investigations of this more recent adjunct to surgical therapy were directed toward use of cold to relieve pain;[27] however, more recent studies demonstrated a decrease in cerebral oxygen consumption of 6.7 per cent per degree centigrade fall in precooling temperature.[60] Other body functions were likewise reduced. Botterell, et al.,[9] reported the use of hypothermia in the therapy of saccular aneurysms and showed that carotid occlusions could be prolonged by refrigeration of the patient.

Hypothermia has now become quite popular in neurological surgery. Reported advantages are decreased brain volume and increased extracerebral space, reduced metabolic rates allowing prolongation of periods of diminished or absent cerebral blood flow,[59] and reduced bleeding associated with permissable diminution in or interruption of cerebral blood supply.[9] There are distinct dangers from the use of hypothermia, particularly when the temperature of the patient is reduced below 28-30° C. and even with less severe degrees of hypothermia when its use is prolonged. Hamby[34] and others have been quite critical of its use, but we have continued to use it during surgery to increase the periods of vascular occlusion. We have had no experience with "profound" hypothermia or cooling patients to 27° C. or below. Thus, we have not had experience with producing cardiac standstill. We use refrigeration to maintain normal or perhaps slightly subnormal temperatures on the wards. Utilizing hypothermia this way, we feel that hypothermia is a distinct asset but we have very little objective evidence to prove this postulation.

Hypertonic Solutions

Another adjunct to direct intracranial attack upon aneurysms has been the development of hypertonic solutions which may be used to temporarily reduce the volume of the intracranial contents. Fay[25] examined the effect of infusions of sodium chloride and magnesium sulfate in 1924. The use of hypertonic glucose solutions has also been recommended.[30] However, hypertonic solutions did not enjoy great pop-

ularity until the pioneering work of Javid with urea was reported.[39, 41] Use of dehydrating solutions has now become a standard adjunct to many operative procedures—especially for intracranial aneurysms.

Urea is administered intravenously during surgical procedures but is also recommended for oral administration. It is usually given as a 30 per cent solution in 10 per cent fructose. The recommended dosage is 1 to 1½ grams per kilogram body weight. Its mode of action[45, 48, 62, 70] has been discussed by several authors and most agree that it osmotically removes fluids from tissues. A disadvantage is the secondary rise in intracranial pressure following its use.[14, 45, 48] This phenomenon has been denied by Javid, et al.[40] and Wise and Chater[77] but evidence presented in the literature appears irrefutable. Explanation seems to be in the amount of urea absorbed by brain tissue.

More recently the use of mannitol which has a molecular weight approximately three times that of urea has been recommended for the reduction of cerebral mass.[61, 63] On a weight-for-weight basis, mannitol is reported to be slower acting and have a more prolonged effect with less rebound.[48, 56] Glycerin has also been recommended.[12] Reportedly it produced no gastrointestinal distress when given orally but it has been found to produce hemoglobinuria when given parenterally.

Our experience during the course of surgery has been limited to parenteral urea which has proved to be quite effective and safe. One must insert a catheter before surgery[39] and make certain that infusions are not lost into the tissues.[75] Careful fluid and electrolyte balance must be re-established after its use.

Medical Management of Intracranial Aneurysms

As techniques and adjuncts for the surgical attack upon intracranial aneurysms has improved, so has the medical management. We implied in Part I of this series[4] that hypertension probably played an active role in the etiology of many of these lesions. Ganglionic blocking agents and thiazide drugs, which, when combined with bed rest and sedation, allow the reduction of systemic blood pressure sufficiently to remove stress from the vascular defects. Slosberg has been a crusader for this form of therapy[66, 67, 68] and is now reporting results that compare favorably with most series of aneurysms treated by direct intracranial attack.[69] He utilizes four weeks of strict bed rest with constant monitoring with medication sufficient to reduce blood pressure to the lowest safe level.

Arguments against this form of therapy primarily center about the fact that the vascular defect is not repaired. However, these arguments may be offset in part by the findings of the Cooperative Study which indicate that approximately 70 per cent of rebleeding episodes from aneurysms have occurred within the first four weeks following a specific hemorrhage.[47]

Conclusions

Material, which has been presented in this series, reviews some of the techniques and adjuncts to therapy which are now available for the treatment of intracranial saccular aneurysms. We make no claim of comprehension for any sections of this report. Material on the subject of intracranial aneurysms is voluminous and a comprehensive review would require many volumes, and yet be of limited usefulness to the practitioner who is faced with the problem, "What should I do with the patient just admitted with headache, stiff neck, and drowsiness, with or without neurologic defects?"

A lumbar puncture will confirm the diagnosis of subarachnoid hemorrhage. Angiograms must be obtained to accurately determine the presence and location of the lesion and the route of its blood supply. Utilizing carefully recorded serial observations and the tests at our disposal for determining patterns of blood flow, a choice of therapy for the particular aneurysm in question may then be made. The choice may take into consideration such matters as the technical ability of the surgeon, the availability of skilled observers and assistants and whether certain adjunctive measures are accessible.

Based upon information presently available and perhaps by adding some simple logic, it seems clear that aneurysms of the anterior communicating and anterior cerebral arteries would be better treated with hypotensive medications or by direct attack rather than by ligation of the carotid artery, assuming the Circle of Willis is complete. Likewise, it appears likely that lesions of the basilar artery, with few exceptions, will be best treated conservatively at least for some time. Since there is considerable difference in the frequency of rupture of aneurysms depending upon whether they have ruptured in the past, and when a rupture occurred if one has, these factors must be considered.

For the present, the Cooperative Study of Intracranial Aneurysms and Subarachnoid Hemorrhage is making every effort to collect data on each of the points mentioned, as well as many others, and the group is dedicated to dispensing the information collected as rapidly as the information becomes available.

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SOUTHWEST GEORGIA MEDICAL SEMINAR HUGE SUCCESS

Dr. F. Dempsey Guillebeau, Chairman of the Program Committee; Dr. Alfred A. Messer, speaker from Emory University School of Medicine; and Dr. Robert Waller, Albany, chat during the Tenth Annual Southwest Georgia Medical Seminar which was held in Albany October 26 and 27.

More than 125 physicians and an equal number of exhibitors and guests attended the seminar at which four scientific speakers, two from Emory University School of Medicine and two from the Medical College of South Carolina, presented papers.

Other activities included a business meeting of the Second District Medical Society, golf, skeet shooting, tours, etc. (Photo courtesy Mrs. Louise Whiting, Society Editor, Albany Herald.)

■ On the basis of the author's experience, he feels that this procedure should be employed more frequently.

COLD CONIZATION OF THE CERVIX 1960-1965

Willis M. Hendricks, M.D., *La Grange*

THIS STUDY ON 358 CONSECUTIVE PRIVATE PATIENTS took place between 1960 and 1965. There were no clinic patients included. These patients lived within a radius of 50 miles of La Grange.

I became interested in this procedure in 1959. I realized that this procedure was not only an adequate diagnostic tool but, also, a therapeutic one in the majority of cases. I believe that the results of this study bear out this feeling. As you will see by this study, I did not allow the Papanicolaou result or the age of the patient to influence me in carrying out this procedure.

The pros and cons of this procedure, the techniques employed, etc., will not be discussed in this paper.

The results of this study are tabulated in the following 9 tables.

TABLE I

This table shows that 246 patients had had no Papanicolaou Smear for 6 months prior to the conization. However, a great number of these patients gave a history of having had a smear made from 1 to 4 years prior to the conization.

		%
Total number of patients	358	
Number having no Pap. Smear (for six months prior to conization)	246	68.99
Number having Class I Pap. Smear	47	13.13
Number having Class II Pap. Smear	57	15.92
Number having Class III Pap. Smear	7	1.96
Number having Class IV Pap. Smear	1	.27

TABLE II

This table demonstrates the superiority of this procedure as a diagnostic tool. Of the total number of cases (358), that underwent a cold conization, 26 cases (7.26%), were found to have carcinoma of the cervix.

Total number of patients	358	
Number having carcinoma of cervix	26	7.26%

Presented at the 113th Annual Session of the Medical Association of Georgia, May 1, 1967, Atlanta, Georgia.

TABLE III

In this table one sees that of the 26 cases of carcinoma, 6 (24%) had either a Class I or II Papanicolaou Smear, 4 had a Class III Papanicolaou Smear, 1 had a Class IV, and 15 had no Papanicolaou Smear for 6 months prior to the conization.

Total number carcinoma of cervix	26
(a) Number with no Pap. Smear	15
(b) Number with Class I Pap. Smear	1
(c) Number with Class II Pap. Smear	5
(d) Number with Class III Pap. Smear	4
(e) Number with Class IV Pap. Smear	1

TABLE IV

In this table the pathological diagnosis of the 26 cases that had carcinoma were as follows: 19 cases were diagnosed as Stage 0, 2 cases were diagnosed as Stage IA, 4 cases were diagnosed as Stage I and 1 was diagnosed as Stage II. The important fact in this table is that 6 cases (33%) of the 19 cases of Stage 0 were found to have residual carcinoma in the operative specimen.

Number having carcinoma of cervix	26
(a) Number having Stage 0 (no residual)	13
(b) Number having Stage 0 (with residual)	6
(c) Number having Stage IA	2
(d) Number having Stage I	4
(e) Number having Stage II	1

TABLE V

The 26 cases of carcinoma of the cervix were treated as tabulated in this table.

Treatment	
(a) Stage 0 carcinoma	(19)
(1) Total hysterectomy	8
(2) Total hysterectomy and bilateral S. & O.	11
(b) Stage IA carcinoma	(2)
(1) Wertheim with pelvic node dissection	1
(2) No follow-up after conization	1
(c) Stage I carcinoma	(4)
(1) Wertheim with pelvic node dissection	2
(2) Irradiation therapy	2
(d) Stage II carcinoma	(1)
Irradiation therapy	1

TABLE VI

In this table one sees that only 11 cases (3.07%) of the total 358 cases suffered with a postoperative hemorrhage. A total of 347 cases (96.93%) had no complication. There were no cases of postoperative infection.

		%
Total number of patients	358	
Number of postoperative hemorrhages	11	3.07
Number without postoperative hemorrhages	347	96.93
Number with postoperative infection	0	

TABLE VII

This table shows the age and race distribution of the 26 cases with carcinoma of the cervix.

Carcinoma of cervix	26
(a) Average age	
20-30 years	7
30-40 years	10
40-50 years	6
50-60 years	2
60-70 years	1
(b) Race	
White	22
Negro	4

In conclusion, I believe from my experience that this procedure should be employed more frequently.

TABLES VIII AND IX

These tables show the ages and parity of the 26 patients with carcinoma of the cervix.

Carcinoma of cervix (Stage 0 with residual	6
Age	Parity
1. 25 years	para 5-0-0-5
2. 28 years	para 3-0-0-3
3. 32 years	pare 2-0-0-2
4. 34 years	para 2-0-0-2
5. 45 years	para 3-0-0-3
6. 46 years	para 1-0-2-1

Carcinoma of cervix (Stage 0 with no residual)	13
Age	Parity
1. 25 years	para 4-0-0-4
2. 26 years	para 2-0-1-2
3. 26 years	para 2-0-0-2
4. 27 years	para 2-0-0-2
5. 31 years	para 2-0-1-2
6. 31 years	para 1-0-0-1
7. 33 years	para 3-0-1-3
8. 35 years	para 2-0-1-2
9. 37 years	para 4-0-3-4
10. 39 years	para 0-0-0-0 (unmarried)
11. 43 years	para 3-0-0-3
12. 44 years	para 2-0-1-2
13. 52 years	para 2-0-0-2

It is a thorough diagnostic tool for the study of the cervix and it is also a therapeutic procedure in the majority of cases.

ROBERT HUIE NEW PRESIDENT OF G.P.'S

Robert Huie of Decatur became President of the Georgia Academy of General Practice during the 19th Annual Session of the Academy held in Atlanta November 3 and 4 at the Regency-Hyatt House. Irving D. Hellenga of Toccoa was named President-Elect.

Other officers include Turner Rentz of Colquitt, Vice-President; David S. Sowell of Atlanta, Fifth District Director; James C. Dismuke of Adel, Eighth District Director; Terrell B. Tanner of Hartwell, Ninth District Director, and A. Dan Duggan of Washington, Tenth District Director. R. D. Walter of Calhoun and T. A. Sappington of Thomaston were named Delegate and Alternate Delegate to the American Academy of General Practice.

Registration at the meeting numbered around 120. Out-of-state guest speakers included E. A. Haunz of Grand Forks, N.D.; William Karl Keller of Louisville, Ky.; George H. Orvin of Charleston, S.C.; and Albert N. Brest of Philadelphia. In-state speakers were Walter P. Barnes of Macon and Robert B. Greenblatt of Augusta. Carroll Witten, Immediate Past President of the American Academy of General Practice, spoke following the President's Banquet.

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■ The author outlines his favorable experience with this new type of lens.

FLEXIBLE PRESBYOPIC LENSES*

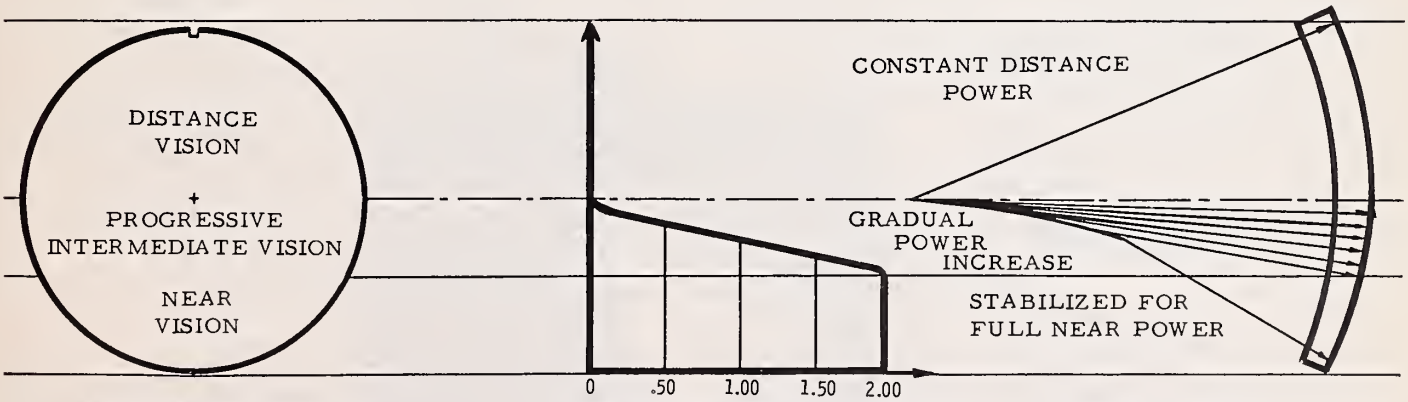
Morgan B. Raiford, M.D., *Atlanta*

THE ULTIMATE GOAL of an ophthalmic lens is to provide an uninterrupted physiological focal length for any desired distance in the presbyopic patient. From the inception of the split lens designed by Benjamin Franklin, to the fused bifocals and trifocals of today, advances have been made to give the wearer the best visual amplitude at any required distance. Though admittedly improved, these lenses are often inadequate, frustrating and limited in their respective focal lengths, with the ever evident blurred area of visual acuity beyond the zone of the presbyopic correction.

These deficiencies in the past have been endured by the presbyopic patient as an accepted mechanical limitation of the art and science of lens manufacturers. Efforts to overcome this have been demonstrated by various blends and additives which are still short of physiological visual flexibility and tolerance. The author has been a presbyopic bifocal wearer for the past ten years. No discomfort has been present in wearing bifocals except in the limited and blurred area of the zone that afforded the bifocal additive (+2.25 sphere) and where the distance vision can take over—the intermediate zone has always been a problem. Trifocals add another transverse optical focal step of interruption and although they clear the intermediate focusing area, they limit the vertical range of the near visual flexibility. We have ended up with an optical aid with certain mechanical faults that has been accepted to date because it is the best optical device we have found practical.

In 1964 a group endeavored to carry the work of Vogt[1] to a further stage of physiological effectiveness. The attempt to achieve continuous vision[2] was first begun by clinical investigation by Gillett in France in 1959. Some three thousand different combinations were evaluated to develop the present

* *Titmus Optical Company, Varilux Optical Division, Petersburg, Virginia.*



LAYOUT OF LENS NO VISIBLE DIVIDING LINES

FIGURE 1A

HOW POWER GRADUALLY INCREASES IN PROGRESSIVE INTERMEDIATE VISION AREA

FIGURE 1B

SECTION THRU LENS SHOWING CHANGE OF CURVATURE ON FRONT SURFACE

FIGURE 1C

Varilux[3] lenses. To appreciate this vast improvement, the ophthalmologist must be a bifocal user. The need of a continuous focusing range is essential in all ages and its apparent restrictive embarrassments are evident by the fifth decade of life. The bifocal head angulations, as well as other body movements, have been regarded as a way of life, to attain a focusing range requirement. The Varilux flexibility (Figure 1) allows the presbyopic to focus at any desired range. The top half of the lens (60 mm. round blank) has the distance correction (Figure 1A), the lower half has a 12 mm. transition (intermediate) zone (Figure 1B) and the 18 mm. stabilized near zone (Figure 1C). The total power is presently available from –8.00 sphere to +6.00 sphere. The base curves are –6.50 to –9.50 diopters, and the patient should always be given the base curve that is nearest the past correction. Any cylinder or prism can be used in the prescription.

The easiest method for adaptation is for the first presbyopic correction to be that of the Varilux lens. The vertical range is practically unlimited. The horizontal range is as at the visual reading distance, about 35 mm. This can be increased to 40 or 45 cm. by inward angulation of the lower spectacle frame.

The following points are essential for the use and fitting of the Varilux lens.

1. The patient's habits of head angulation should be noted and position of frame should be so fitted.

2. The frame should be of a snugly fitted saddle bridge type; we have found on the spectacle frame, the adjustable nose pads vary and cause optical discomfort because they get out of alignment.

3. Each lens must be measured to the patient's optical center. The monocular intrapupillary measurements are essential for successful fitting, and this point is the greatest source of error. One millimeter off center is uncomfortable, as the writer has experienced.

4. Inward angulation of the lower frame increases the horizontal width range for near vision. An increase of 10 to 20 centimeters can readily be expanded for the patient's horizontal near scope.

5. The spectacle frame should not be less than 32 mm. in vertical height. We prefer 32 to 36 mm. minimum height range as it allows more flexibility of the transition zone (Figure 1B).

6. A saddle bridge nose frame is less maneuverable by the patient. When the lenses are not in optical center the patient experiences pupillary fatigue in the form of headache, with general discomfort in the periciliary muscle area of each eye. We have found this type easier to wear in our series of cases.

7. The near vision is ground (5 mm. total) nasalward 2.5 mm. for each lens, the prescription to allow for physiological near point. This begins 12 mm. below the horizontal center of the lens at the lower margin of the transitional zone (Figure 2A). The horizontal alignment can be validated by two small circles located in the lens, which may be seen by holding the lens over a dark surface and illuminated by a pen light (Figure 2A and B). The measurement of the exact number of millimeters each optical center lies from the center of the bridge of the frame can be accurately measured by the use of a centering chart. Here the distance (Figure 3A) and near center can be positioned. The near (Figure 3B) addition optical power is marked under the circle on the temporal side.

8. Some practical points for patient information:
   a. The overall principle provides a variable focal length (for the presbyope) in this type of lens.

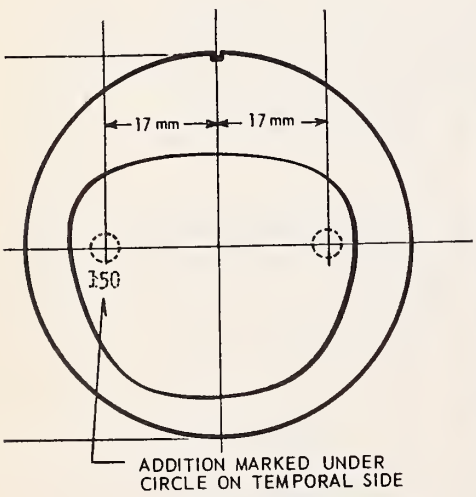


FIGURE 2A

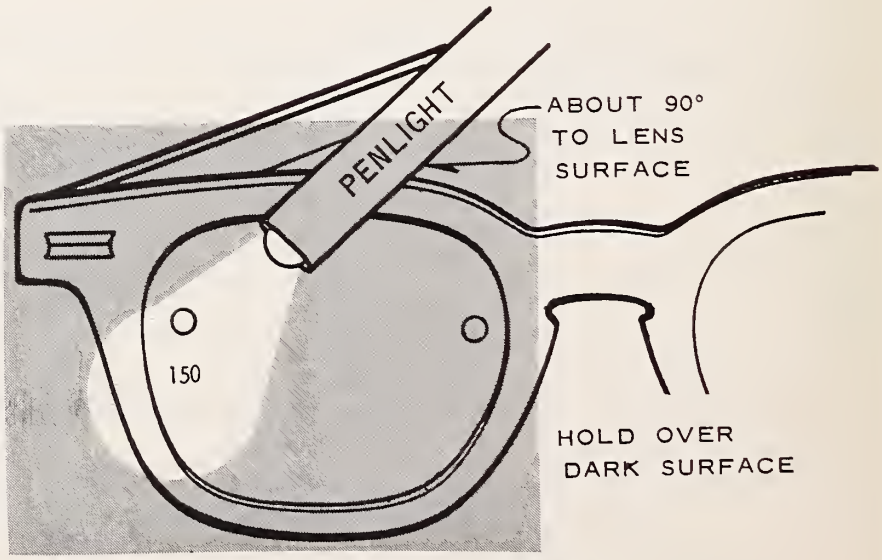


FIGURE 2B

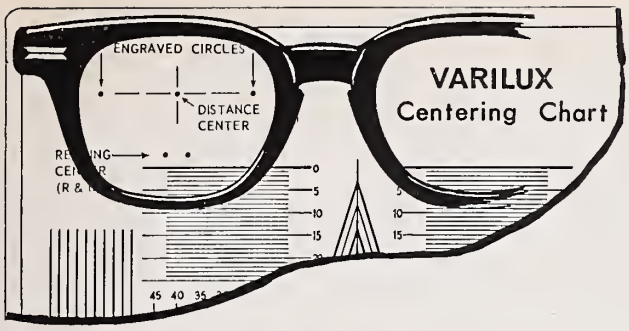


FIGURE 3A

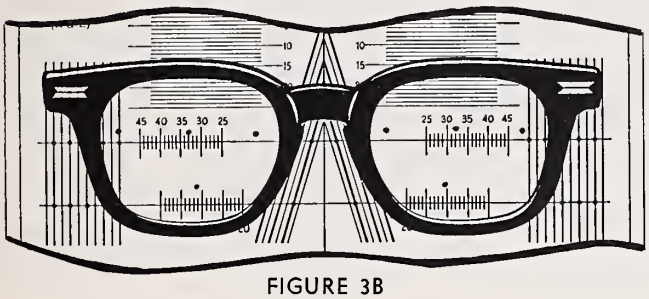


FIGURE 3B

b. If the wearer has worn the conventional bifocals, explain that this type of "bifocal" will at first cause the vision to blur at near range as we have to relax our pupillary muscles that were needed for focusing in the conventional type of bifocals. This is usually over in the first 2 to 4 hours.

c. The automatic reflex habit of "stooping" for bifocal range will gradually decrease. It takes about 10 days to become acclimated to this type of correction and appreciate its advantages.

d. In shopping, looking at table heights or shelves in the supermarkets, you learn to move the eye up and down for the proper focal length, first "over-focusing," which is irritating to the new Varilux wearer, then by automatic reflexes, and learn to adjust to the clearer variable or desired distance "zone."

e. When parking a car, or backing out of a driveway, hold the head on a horizontal plane and look to the side from the upper half of the glasses. This avoids blur from the transition and near zones of the Varilux lens.

f. Explain that the frames should be of a snug fit, and angled inward at the lower edge of the frame. This provides greater wearing comfort for near vision horizontal range.

Of the 457 patients fitted with the Varilux lenses in our clinic, four have returned to their previous bifocal types. One was an alternation in fixation due to congenital paresis of the left superior rectus with a dominant fixing left eye. The transition zone caused an awareness of diplopia that was suppressed with greater rapidity in the horizontal bifocal that she had been wearing. The second and third patients were monocular fixers, having some amblyopia of their opposite eye. The habit of going directly from distance focusing was easier to suppress than it was with the presence of a transition zone as in Varilux lenses. The fourth patient's habit patterns were so rigid and fixed that any change upset him. We have found that this type of patient should be disturbed as little as possible, even if the visual physiology can be benefitted. The patient should wear the Varilux lenses all the time to maintain the near vision physiological function.

Summary

1. The Varilux lens incorporates the best optics of any available design for the presbyope.

2. It must be properly fitted and worn by the patient.

3. To really appreciate its excellence, the ophthalmologist should himself be a presbyope or have, as a lady patient stated, "reached the 'missile space age,' 39 and holding."

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"TALKING BOOKS" AVAILABLE TO PHYSICALLY HANDICAPPED

"Talking books" that the Library of Congress has supplied to the blind for 34 years are now available to those with other physical handicaps. A patient who is paralyzed, lacks muscle or nerve coordination, or is confined to an iron lung, for example, can now use the free service by sending a brief statement by his doctor certifying the disability to the Library or to one of 34 cooperating regional libraries. He may borrow both books and a phonograph.

Catalogs of books available in the regional libraries and information on national services and resources may be obtained from the Division for the Blind and Physically Handicapped, Library of Congress, Washington, D.C. 20540.

Special Article

VIETNAMESE MEDICINE

Earnest C. Atkins, M.D., *Atlanta*

RECENTLY I WAS PRIVILEGED to accompany Benjamin B. Blackburn, Fourth District Congressman, on a visit to the Republic of South Vietnam. We visited both military medical facilities and Vietnamese civilian hospitals, and I was very much impressed with the military hospitals, both the personnel and the equipment.

The care given our fighting men is of the highest quality; thus, approximately 80 per cent of the patients admitted to the Evacuation Hospitals are returned to active duty. The remaining 20 per cent are transferred out of the country for further treatment. The morale of the doctors, nurses, hospital staff and patients is very high in all branches of the service we visited.

Civilian Medicine 200 Years Behind

On the other side of the coin, we saw Vietnamese civilian medicine—this was American medicine 200 years ago. South Vietnam has three medical schools but practically no textbooks or journals. A student takes notes for four years from lectures given by his professors and then enters practice armed with this information in a notebook. Now American doctors, both military and civilian, are staffing the Vietnamese medical facilities. This is upgrading the practice of medicine and patient care. The doctors we met on our trip are dedicated, capable and hard-working men, and they are teachers as well as healers.

Civilian war casualties comprise 50 per cent of the patients in the Vietnamese hospitals. Medical and surgical emergencies account for 25 per cent, and elective admissions take up the remaining census. Each 200-bed hospital typically is divided into four wards with two nurses on each ward. When a patient is admitted, at least one member of the family accompanies him, feeds, bathes and cares for him until he is dismissed. There is no privacy on the wards, but this is an accepted custom; however, the wards are segregated as to sex.

One ward had American-type hospital beds and mattresses but no linen. This ward became a status symbol with all patients wanting to be admitted to this ward. After the mattresses have been slept, vomited, urinated, defecated and bled on, they are turned over. After two patients, you have a dirty, infectious, unsanitary mess, so the physician-in-charge, who is a very practical man, said, "Don't send any more American hospital beds!"

Dr. Atkins, Peter Mink of Decatur, Georgia, and Congressman Benjamin B. Blackburn are pictured at the 36th Evacuation Hospital, Vung Tau, below Saigon.

The Vietnamese hospital bed is a simple metal frame that can be washed very easily. A straw mat is placed over the metal frame for the patient to lie on. When a patient is discharged, the bed is washed, the straw mat is burned, and a new one is placed on the bed for the next patient. Also, lying on this hard surface, patients do not get bed sores, because they turn themselves frequently.

About 450 operative procedures per month are performed in a 200-bed hospital with two operating rooms. Instruments are at a minimum, but sterile drapes are available. Spinal anesthetics are choice, but gas machines with fluorothane anesthetic are available. Intravenous fluids are widely used, and a fair supply of drugs is available. We visited an operating room during surgery and saw a lizard on one wall. We called this to the attention of the operating surgeon, and he said, "Leave him alone—he catches flies!"

Radiological examinations and limited laboratory examinations are available for a limited number of patients but, overall, the practical American civilian doctors are responsible for advances in Vietnamese medicine.

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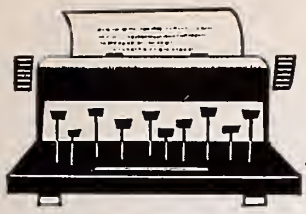


EDITORIALS

Christmas Greetings

"My best wishes for your merry Christmases and your happy New Years, your long lives and your true prosperities. Worth twenty pounds good if they are delivered as I send them. Remember! Here's a final prescription added 'To be taken for life.'"

—Charles Dickens, *Doctor Marigold,* Chapter 1

AMA Looks South for '72

THE LARGEST MEDICAL TEACHING MEETING of its kind in the world has been scheduled for Atlanta in 1972.

The American Medical Association has announced that its 1972 Clinical Convention will be held in Atlanta on November 26-29. This is the first time in modern history that an AMA meeting of this magnitude has met in Georgia's capital city.

Selection of Atlanta as the host city for 1972 was made by the AMA House of Delegates at its biannual meeting in Houston last month.

If past Clinical Conventions provide us with a measure for 1972, a total Convention registration of approximately 15,000 including more than 6,000 physicians can be anticipated.

Designed as the ultimate in postgraduate medical education, AMA Clinical Conventions utilize a variety of instructional techniques including lectures, panels, forums, roundtables, motion pictures, closed circuit color television and a large assembly of outstanding scientific and industrial exhibits.

The 1972 Clinical Convention will provide a real "shot in the arm" to medical practice in Georgia and throughout the South. Cities all over the country compete annually for these conventions. Selection of Atlanta for '72 is a tribute to Georgia —but it didn't just happen by chance. It came about as the result of foresight and hard work. It was climaxed by a personal appearance before the AMA Board of Trustees in Chicago by Dr. J. W. Chambers, Chairman of the MAG Delegation to the AMA House of Delegates. Assisted by the Atlanta Convention Bureau, Dr. Chambers' "sales pitch" set the wheels in motion that led ultimately to the designation of Atlanta by the AMA House of Delegates.

MAG, which "started the ball rolling" in this matter, is thoroughly delighted that the Clinical Convention is coming to Atlanta in 1972. While it seems a little early, we want to be the first to say welcome.

Regional Medical Programs—A Good Beginning

When Public Law 89-239 was written by Congress, it was written for a specific period and the Surgeon General was instructed to report to Congress by June 1967 on the progress to date in implementing this law.

The Surgeon General's report to Congress has just been released to the public and his conclusions and recommendations to Congress are of great importance to us all.

Extension of the Program Is Needed

The Surgeon General concluded that an effective beginning has been made in the creation of cooperative arrangements among the regional health resources for implementing the purposes of the law; that the regional cooperative arrangements being established and the plans being developed and implemented show great promise for providing the benefits of the advances of medical science to persons threatened or afflicted with heart disease, cancer, stroke and related disease; that the regional medical programs will be seeking to accomplish their mission during the time when many major problems beset our health professions and institutions, but the regional medical programs seem to provide a relevant and useful tool in the search for better solutions to these health problems; that the extension of this program and the indication of substantial further national support are needed to sustain and nurture the individual and institutional commitments as well as the enthusiasm which gives vigor and substance to the regional cooperative arrangements and that these initial efforts require an environment of stability and status in which permanent effective cooperation can flourish; that the initial progress provides solid evidence for continuing the program without modification of its essential nature and purposes; and finally, that a more effective means for meeting the special space needs generated by this program is requisite to the full achievement of the purposes of the legislation.

Requests Five-Year Extension

He then recommended that the program be established on a continuing basis; he requested a five-year extension and estimated that preliminary experience indicated an annual cost of operation for each regional medical program of as much as ten million dollars or more. He pointed up the critical need for new space in many medical facilities and recommended therefore that adequate means be found to meet needs for construction of such facilities as are essential to carry out the purposes of regional medical programs.

He recommended that priority should be given to facilities required for continuing education, training and related demonstrations of patient care, particularly in community hospitals. He recommended that an effective mechanism be found for the support of interregional activities necessary to development of regional medical programs; he recommended that the law be broadened to include patients referred by practicing dentists as well as practicing physicians, and finally he recommended that federal hospitals be considered and assisted in the same way as community hospitals in planning and carrying out regional medical programs.

To those who have worked so hard in the planning phase of the regional medical program in Georgia, these conclusions and recommendations are indeed heartening. Our first year of planning is drawing to a close and progress to date has been so good that the advisory group is expected to make its first request for an operational grant in March 1968.

The future for the regional medical program in Georgia seems assured.

J. Gordon Barrow, M.D., Atlanta
Director, Georgia Regional Medical Program

ONE ROAD OR BOTH?

THE DEPARTMENT OF PUBLIC HEALTH in the administration of Title 19 (Medicaid) is required to keep separate accounting of the amounts of money spent on Part A, institutional costs, and Part B, professional services. The simple answer would have been to require that all physicians bill for their services on the physicians' form. It became apparent immediately that this was impossible because many Radiologists, Pathologists and a few Physicians working full time in the Emergency Clinics are still on a percentage basis.

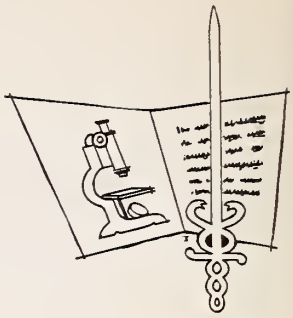
A second mechanism had to be included by which the hospitals could bill professional services.

It is time to take a look at these two roads and decide if we should travel one road or both.

The Georgia State Association of Medical Assistants is working hard to assist the physician in his work. Their goals are to inspire members to render honest, loyal and more efficient service to the profession and to improve public relations. They have helped establish training programs for medical assistants in vocational schools. Muscogee County Chapter and Fulton County have helped with the new courses started in their areas this fall. The latest course is offered by Atlanta Vocation Technical School and includes a ten month course in all phases of medical assisting.

John T. Mauldin, M.D.
President, Medical Association of Georgia

CANCER PAGE



CANCER STATISTICS

A. B. Conger, M.D.,* *Columbus*

DEATH RATES FROM CANCER of the lung continue to rise to record heights, while death rates from cancer of the uterus continue to decline.

The American Cancer Society's "1968 Cancer Facts and Figures" shows that deaths from cancer of the lung will mount to an all-time high, with 55,000 deaths estimated for 1968 as compared to 52,000 this year.

A decline is indicated for the death rate from uterine cancer (though the number of deaths this year—13,500—remains the same because of population changes). This is a continuation of the trend which has cut the death rate in half from this type of cancer in women over the past 25 years. The ACS attributes the increasing number of lives saved in large part to the wider application of the Pap test which helps detect the cancer in its early and more curable stages.

More than 50 million Americans now living will eventually develop cancer—if the present rates continue, the Society's booklet reports.

The figure of over 50 million Americans means that one in every four persons will get cancer and it will strike approximately two of three families.

The death rate of stomach cancer continues to decline—the estimate for 1968 is 17,000 deaths as against 18,000 this year. "1968 Cancer Facts and Figures" notes that there has been a 40 per cent decline in mortality from stomach cancer in the past 20 years, for reasons yet unknown.

"There are now 1,400,000 Americans, alive today, who have been cured of cancer," according to the ACS publication. By "cured," the Society means that they are without evidence of the disease at least five years after diagnosis and treatment. Actually, the Society notes that there are more than 2,000,000 Americans cured of cancer, because 700,000 ex-cancer patients will not formally be counted as cured until they have completed the five years.

About 200,000 Americans will be saved from cancer in 1968, the publication reports. It also notes that if present rates continue, 100,000 cancer patients will die in 1968 who could be SAVED by earlier and better treatment. "1968 Cancer Facts and Figures" also shows that in 1968 about 915,000 Americans will be under medical care for cancer; there will be about 600,000 new cancer cases (diagnosed for the first time) in 1968.

In 1968 an estimated 4,500 children under the age of 15 will die of cancer, about half of them of leukemia. On September 1, 1967, there were 61 ACS grants for more than $2 million that were directly or indirectly related to leukemia. Many cancer experts believe that if drugs or vaccines can be found which will cure or prevent cancer, they will be successful first for leukemia and the lymphomas.

According to the Society publication, cancer of the colon and rectum will strike about 73,000 Americans in 1968, more than any other type of cancer except skin, and will occur about equally in men and women. Some 45,000 die of it annually, although almost three out of four patients might be saved by early diagnosis and proper treatment.

Approximately 1,000 more deaths from cancer of the breast are estimated in 1968 than occurred in 1967. The 1968 estimate is for 65,000 new cases and 28,000 deaths. Cancer of the breast remains the leading cause of cancer death in women.

*Chairman of the Board of Directors, American Cancer Society, Ga. Div., Inc.

MITRAL REGURGITATION

Martin J. Frank, M.D., *Augusta*

Competency of the mitral valve depends upon the anatomic and functional integrity of valve leaflets, chordae tendineae and papillary muscles. The leaflets must be intact, their combined surface area larger than that of the mitral valve orifice, and their substance sufficiently mobile to oppose properly. The chordae tendineae and papillary muscles then prevent eversion of the leaflets into the left atrium during systole.

Mitral regurgitation resulting from rheumatic fever produces incompetence by loss of valve substance (predominantly from the posterior leaflet) and chordal shortening. Bacterial endocarditis may produce loss of valve substance, rupture of chordae tendineae or partial obstruction of the closure line by vegetations. Congenital heart disease may produce mitral regurgitation by a failure of the development of the endocardial cushions in a complete or partial form of atrioventricularis communis where failure of fusion of the valve tissue at the center of the atrioventricular canal may produce clefts in the mitral and tricuspid valves and both an atrial and ventricular septal defect. Mitral regurgitation may also be part of the complicated picture of corrected transposition of the great vessels, endocardial fibroelastosis, aneurysmal dilatation of the left atrium or left ventricle and idiopathic hypertrophic subaortic stenosis. Mitral regurgitation may be the only defect in such situations as Ebstein's anomaly of the mitral valve, double-orifice thickenings and deformities, anomalous chordal insertions or congenital chordal shortening. Mitral regurgitation may result from myocardial ischemia or infarction. In these patients papillary muscle rupture may occur in which case there is usually the sudden onset of the classical findings of mitral regurgitation associated with congestive heart failure. In other cases myocardial infarction may involve the anterolateral papillary muscle or the adjacent myocardium resulting in papillary muscle dysfunction. In this situation mitral regurgitation may be temporary or permanent.

Chronic mitral regurgitation may be present for many years prior to the development of symptoms. In these patients the left atrium and left ventricle dilate only enough to accommodate the increase in mitral valve flow produced by the regurgitant stroke volume. The loudness of the holosystolic murmur, the direction and degree of transmission may be very misleading when evaluating the severity of the lesion. These factors are particularly important in certain cases of posterior leaflet involvement where the murmur and thrill will be more evident in the primary and secondary aortic area suggesting aortic stenosis except that the murmur is holosystolic. In other cases with large dilated hearts the murmurs of mitral and

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Prepared at the request of the Committee on Professional Education of the Georgia Heart Association.

tricuspid regurgitation may be confused. Moreover, single views of the chest give the examiner only a two-dimensional impression of the degree of left ventricular enlargement, while left ventricular volume increases as the cube of the radius. In addition, electrocardiographic evidence of left ventricular or left atrial enlargement may be late in developing. These factors are particularly important when evaluating a patient in the first three decades of life. The development of myocardial failure results in progressive left atrial and left ventricular dilatation beyond that which is required to accommodate the increased stroke output. It is the progressive dilatation of the left atrium which most often leads to the development of atrial fibrillation and the ensuing tachycardia and finally to the development of progressive cardiac symptoms and congestive heart failure.

Progressive left ventricular and left atrial dilatation leads to progressive mitral regurgitation due to dilatation of the mitral orifice and compromise of the function of papillary muscles and chordae tendineae. While the absence of hyperactivity of the left ventricle, a third heart sound and only slight or moderate enlargement of the left atrium and left ventricle may be misleading as to the severity of the lesion, a left ventricular heave, loud third heart sound and definite cardiac enlargement leave no doubt as to severity. The development of atrial fibrillation is confirmatory evidence. The findings of severe mitral regurgitation associated with a normal sinus rhythm, a fourth heart sound and first degree heart block suggest rupture of chordae tendineae. Since the clinical course is quite rapid, the patient is often seen prior to the onset of atrial fibrillation.

The high overall mortality of mitral valve replacement associated with failure of a significant number of patients to experience a reduction in heart size suggests that many are brought to cardiac surgery in too late a stage of their disease. The post-operative low cardiac output syndrome, which correlates very well with mortality, is most often seen in this group of patients. This may indicate that cardiac catheterization and cine-angiocardiography should be performed whenever a severe lesion is suspected regardless of the degree of cardiac symptoms. If a severe lesion is confirmed, valve repair or replacement should be carried out as soon as progressive symptoms or progressive cardiac enlargement ensue and prior to the onset of irreversible myocardial damage.

Medical College of Georgia

THE NEW ORLEANS GRADUATE MEDICAL ASSEMBLY

The thirty-first annual meeting of The New Orleans Graduate Medical Assembly will be held March 4, 5, 6, 7, 1968, headquarters at The Roosevelt Hotel.

Nineteen outstanding guest speakers will participate and their presentations will be of interest to both specialists and general practitioners. The program will include fifty-one informative discussions on many topics of current medical interest, in addition to a clinicopathologic conference, symposia, medical motion pictures, round-table luncheons, and technical exhibits. This program is acceptable for thirty-two (32) elective hours by the American Academy of General Practice.

An interesting and enjoyable program of entertainment for visiting ladies has been planned.

Of special interest will be a one-day pre-Assembly symposium scheduled for Sunday, March 3 on "Sexual Problems in Clinical Practice." Six papers, together with a panel discussion, will be presented by six authorities on this subject.

MEDICAL PENSION PLANS

John L. Moore, Jr., *Atlanta*

A RECENT DECISION of the United States District Court for the District of Colorado bears importantly on the long-standing efforts of professional people to obtain greater tax sheltered pension benefits and the Internal Revenue Service to defeat that aim. That decision, handed down on August 31, 1967, held invalid the regulations of the Internal Revenue Service adopted in 1965. A little past history will be helpful.

Kintner Regulations

In 1960, the Internal Revenue Service adopted regulations designed to make it impossible for professional people to obtain the tax shelter offered to employees of corporations for pension and profit sharing plans. Those regulations stated that State law would govern. Subsequently, most of the States, including Georgia, passed "professional association" statutes which caused State laws to allow professional people to obtain those benefits.

In 1965, the Internal Revenue Service again promulgated regulations designed to defeat a professional association even though it was allowed by law to have the characteristics satisfactory under the 1960 regulations.

The recent Colorado decision declared the 1965 regulations invalid under the Internal Revenue Code. The decision also stated that the particular law firm involved met the requirements of the 1965 regulations contrary to the position of the Commissioner of the Internal Revenue Service and, therefore, the law firm was entitled to tax sheltered benefits for a pension plan just as broad as those allowed corporate employees.

Jenkins-Keogh Legislation

A parallel development has been the enactment by Congress of special provisions for professional persons who are either in solo practice or in partnership as distinguished from professional associations or professional corporations. Beginning with tax years which commence on or after January 1, 1968, 100 per cent of the amount put in for a proprietor or a partner of a professional firm will be deductible up to a maximum of $2,500. This affords a latitude not previously offered and makes Jenkins-Keogh Plans much more feasible than they were under the more restricted earlier provisions.

While a single decision of a District Court in Colorado does not allow professional people certainty in having the latitude given corporations, it is a hopeful sign and perhaps professional people ought to begin to think about forming professional associations more than they have in the past. Certainly, serious thought ought to be given to the adoption of a Jenkins-Keogh Pension Plan in 1968.

The Medical Association of Georgia, through its Council, at the September, 1967, meeting, voted to enter a Master Trust with one insurance company allowing one vehicle for the small office to enact a pension plan under the Jenkins-Keogh legislation without undue overhead expense. It should be emphasized that this vehicle is only one of several which a professional man can employ. Others include a special pension trust with a bank as trustee, a "sub-trust" under a master trust with a mutual fund, a sub-trust under a master trust with an insurance company, the purchase of special United States savings bonds without intervention of a trustee, and other vehicles.

Suite 1220
C & S Bank Building

Prepared at the request of The Medical Association of Georgia. Mr. Moore is a member of the firm of Alston, Miller & Gaines, General Counsel to the Medical Association of Georgia.

The case discussed above was Empey v. U. S., Civil Action No. 66-C-373, in the United States District Court for the District of Colorado (August 31, 1967).

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HIGHLIGHTS OF THE MAG EXECUTIVE COMMITTEE OF COUNCIL MEETING, OCTOBER 15, 1967—ATLANTA

This summary is being published so that the MAG membership may be advised in brief of the actions of the Association's Council and Executive Committee. It covers only major actions and is not intended as a detailed report. Full minutes of these meetings are available upon any member's request to the MAG Headquarters Office.

Third Party Payments to Physicians in Teaching Institutions was discussed with representatives of Fulton and DeKalb County Medical Societies. President John Mauldin, at the request of MAG Council, reported on a previous meeting convened with representatives of Emory University School of Medicine, Medical College of Georgia and the State Department of Health, pertaining to Title 18 and Title 19 Medicare regulations. Dr. Mauldin stated that HEW regulations, legal considerations, and ethical implications were discussed at this meeting. Executive Committee requested MAG President Mauldin, Fulton County President Moore, and DeKalb County President Rice to meet with MAG legal counsel to further discuss the new contract between Emory University and Grady Hospital which provides for medical care at that institution.

Georgia Regional Medical Program progress report was given by GRMP Director J. Gordon Barrow concerning task force activity, staff expansion and the employment of a Fiscal Officer. Dr. Barrow discussed plans for the "operational grant" and the 1968 need for additional office space.

Free Choice of Physician by Patients was reaffirmed by Executive Committee in adopting the following resolution: "MAG reaffirms its position which is the position of the American Medical Association in that it supports the concept of the patient's free choice of physician and facilities, with a fee for service basis and usual and customary fee."

Appointments and Resignations were considered by Executive Committee as follows: Appointment to be made to a "Comprehensive Health Care Study Committee on Public Law 89-749"; Resignation of MAG Annual Session Chairman Thomas Q. Spitzer because of his leaving Georgia to join E. R. Squibb & Co.; Resignation of MAG Executive Secretary Mr. Milton D. Krueger who will be leaving Georgia to join the staff of California Medical Association. Executive Committee deferred final action on these items until further arrangements can be made.

Other Items included approval for two MAG representatives to attend an AMA "Health Care of the Poor" Conference in Chicago on December 15-16, 1967; Report on Constitution & Bylaws Committee activity on "Central Billing"; Notification that AMA Council on Rural Health has chosen Atlanta as the site for their 1971 meeting on invitation of MAG; and the date and site of the next meeting of MAG Executive Committee set for November 19, Atlanta, in conjunction with MAG Finance Committee.

DEATHS

Thomas Hardman Clark

Thomas Hardman Clark, 80, of Douglas, died October 18, 1967. He had practiced medicine for 38 years.

Dr. Clark was a native of Webster County, Georgia. He earned his pharmacy degree from Mercer University and later his medical degree from Tulane University.

Beginning practice in Leesburg, he soon moved to Douglas and practiced there until a severe heart attack forced his retirement in 1947.

Dr. Clark served for a long while as president of the Douglas Federal Savings and Loan Assn. and as a director of the Coffee County Bank. He was a veteran of World War I, an Episcopalian, Mason, and past exalter ruler of the Douglas Lodge of Elks.

He was a member of the Medical Association of Georgia and once served as president of the State Medical Examining Board.

Dr. Clark is survived by his wife, and one daughter, Mrs. Curtis Davis of Roanoke, Virginia.

Emery C. Herman, Sr.

Emery C. Herman, Sr., 72, died September 16, 1967, at his home in LaGrange.

Dr. Herman was a native of Conover, North Carolina, and had lived in LaGrange for the past 48 years. He was a practicing physician and surgeon until he retired several years ago.

He graduated from the University of North Carolina and Jefferson Medical College. He was a veteran of both world wars.

Dr. Herman was a member of the First Methodist Church, the Troup County Medical Society, the Medical Association of Georgia, the American Medical Association, the Southeastern Surgical Association and the American College of Surgeons.

Surviving are his widow, the former Emily Park; two daughters, Mrs. Kenneth Dunwoody, Jr., of Macon and Mrs. Grant Sharp of Laurenburg, North Carolina; a son, Dr. Emery C. Herman, Jr., of Cooperstown, New York; ten grandchildren and five sisters.

Humphrey Posey Hyde

Humphrey Posey Hyde of Copperhill, Tennessee, died October 6, 1967, in an Atlanta hospital following a brief illness. He was 86.

Dr. Hyde was a native of Fannin County. He received his medical degree from Southern Medical College, now Emory University, in 1912. He began practice in Hemp, Georgia, later moving to Mineral Bluff. He moved to the Copper Basin in 1921.

Dr. Hyde was a member of the Association of American Physicians and Surgeons, the Ninth District Medical Society, the Medical Association of Georgia, and the Bethel Methodist Church. He was also a life member of Mineral Bluff Lodge No. 423, F & AM. He had served as Polk County Physician since 1938.

Dr. Hyde is survived by his daughter, Mrs. Helen Walter of Copperhill, and one granddaughter, Mrs. Charles E. Kilpatrick of Atlanta.

Henry T. Jones

Henry T. Jones of West Point died September 18, 1967, at Valley Memorial Hospital in West Point.

Born in Jones Mill, Alabama, he was a graduate of the University of Alabama and the Emory University School of Medicine. He served on the staff of the Valley Memorial Hospital and was chief of staff at Lanier Memorial Hospital in Langdale, Alabama. He practiced medicine in West Point and in Tallassee, Alabama. Dr. Jones was a member of the Medical Association of Georgia.

Survivors include his wife, Mrs. Martha Birdsong Jones of West Point; two daughters, Mrs. Jack Wilson of Cartersville and Mrs. Kenneth McCreevy of Charleston, South Carolina; three stepsons, Matthew, Smith and George Birdsong, all of West Point; three brothers, Ralph Jones of Monroeville, Alabama, Earl Jones of Anniston, Alabama, and Houston Jones of Pensacola, Florida; and three sisters, Mrs. James York of Monroeville, Mrs. Walter Merrill of Heflin, Alabama and Mrs. Ethel Jones Driskell of Jacksonville.

Claude T. Key

Claude T. Key of Atlanta, 85, died October 4, 1967.

A native of Douglas County, Dr. Key was a graduate of the Emory University School of Medicine and interned at the old Grady Hospital. He served with the medical corps in Germany during World War I and after his return, began practice in Atlanta. He was a member of the Medical Association of Georgia.

He retired from his practice in 1948 and joined the staff of the Veterans Administration Hospital. He retired from this two years ago.

Dr. Key is survived by a sister, Miss Kate Key, and several nieces and nephews.

Otis Richard Thompson

O. R. Thompson of Macon, a widely known obstetrician and gynecologist, died September 15, 1967, in a Macon hospital.

A native of Pinehurst, Dr. Thompson was a graduate of Emory University and of Tulane University School of Medicine. He began his practice in Macon in 1921.

Dr. Thompson was a member of the Bibb County Medical Society, the Medical Association of Georgia, the American Medical Association, the South Atlantic Association of Obstetrics and Gynecology, and the American College of Surgeons.

He was a member of the Vineville Methodist Church

and served on the Board of Stewards. He was past president of the Macon Exchange Club, an advisor to the Salvation Army and active in Masonic affairs.

Dr. Thompson is survived by his wife, the former Hazel Stokes of Macon; two daughters, Mrs. Claire Dubose and Mrs. N. J. Couch, both of Macon; one son, Dr. Otis Richard Thompson, Jr., of Lenoir, North Carolina; one sister, Mrs. William F. Scarbrough of Cordele, and several nieces and nephews.

SOCIETIES

The **Randolph-Stewart-Terrell County Medical Society** heard Larry Brightwell speak on recent advances in open heart surgery at its September 5 meeting.

The **Thomas-Brooks Medical Society** and the **Dougherty County Medical Society** combined forces to present the 10th Annual Southwest Georgia Medical Seminar in Albany October 26 and 27.

The fall meeting of the **Ninth District Medical Society** was held September 13 at the Toccoa Country Club. The visiting speakers were **Dr. Charles K. Bush** of the Mental Health Division of the State Health Department and **Dr. Gordon Barrow,** Program Director for the Regional Heart, Cancer and Stroke Program. **Dr. Harvey Beall** gave a film program of the Medical Mission to Brazil in which he participated.

The new officers of the Ninth District assumed office at this meeting. They are: **Irving D. Hellenga** of Toccoa, President; **Harvey Newman** of Gainesville, Vice-President; and **C. W. Walker, Jr.,** of Gainesville, as Secretary-Treasurer. **Paul Scoggins** of Commerce is serving as Councilor for the Ninth District and **Bob Tether** of Gainesville is the Vice Councilor.

PERSONALS

First District

Mason G. Robertson addressed a public meeting at Armstrong State College in Savannah on L.S.D. and other hallucinogenic drugs in October.

The Georgia Medical Education Board has presented a certificate of appreciation to **Michael Whittle** for his participation in the Georgia Country Doctor Program in Lyons.

Charles Usher of Savannah spoke up for driver education at a hearing of the Governor's Committee on Highway Safety on proposed highway legislation held in Savannah on October 3.

The American Academy of General Practice has elected **William G. Simmons** of Sylvania to active membership.

J. Miller Byne spoke to the Waynesboro Jaycees at the end of August on the prevalence of heart disease.

Second District

Robert H. Groves of Albany has been elected to active membership in the American Academy of General Practice.

An exhibit summarizing the findings of five years of research to evaluate the need and usefulness of supplemental iron during pregnancy by **James B. Martin** of Albany was presented at the Indiana State Medical Association in Indianapolis and the national meeting of the Association of American Medical Colleges in New York in October.

William J. Morton of Cairo has been appointed to the State Board of Medical Examiners.

Third District

T. Schley Gatewood of Americus has been installed as president of the Georgia State Obstetrical and Gynecological Society. **David Varner** of Columbus is a new director of the society.

Charles R. Sheffield was awarded a certificate of appreciation for his participation in the Georgia Country Doctor Program. Dr. Sheffield is in practice in Dawson.

Dr. and Mrs. Earl A. Mayo of Lumpkin attended the 65th meeting of Seaboard Airline Surgeons in Durham, North Carolina, in late September.

Jack C. Hughston of Columbus spoke on "Equestrian Sports" as part of a panel on specialized sports at the AMA National Conference on the Medical Aspects of Sports held in Houston November 26.

Fourth District

Ben H. Jenkins of Newnan has been reappointed to the State Board of Medical Examiners by Governor Maddox.

The International College of Surgeons has named **James W. Purcell, Jr.,** of Covington, a full Fellow. The rank of Fellow is attained only after a sufficient number of years' practice to obtain mature experience in surgical procedures and after successfully completing extensive oral, written and clinical examinations. Membership provides international passports which open the doors to members in hospitals and medical schools throughout the world.

Fifth District

Sanford J. Matthews of Atlanta discussed epilepsy at a meeting sponsored by the Greater Atlanta Chapter of the Epilepsy Foundation in September.

Cullen Richardson of Atlanta is president-elect of the Georgia State Obstetrical and Gynecological Society.

Ralph A. Tillman of Atlanta has been certified by the American Board of Obstetrics and Gynecology and has also been awarded a certificate of appreciation for his participation in the Georgia Country Doctor Program.

John D. Thompson of Atlanta has been named to the medical advisory board of "Expecting," a quarterly published by Parents' Magazine Enterprises Inc., and directed exclusively to expectant mothers.

Gordon Barrow addressed the regular meeting of the Fifth District Georgia State Nurses' Association on November 9.

T. Q. Spitzer left Atlanta November 27 for New Brunswick, New Jersey, where he will assume a post with the Squibb Institute of Research in clinical development.

The new secretary of the Georgia State Obstetrical and Gynecological Society is **William E. Josey** of Atlanta.

John T. Godwin of Atlanta participated in a Public Policy Conference for physicians sponsored by the Brookings Institution of Washington. The theme of the meeting was Health and Medical Care in a Democratic Society—the Role of Government. The meeting reflected

the status, needs, demands and probable future course of health and medical care in the United States.

Bruce Logue of Atlanta presented a talk on the "Pathogenesis and Clinical Recognition of Pulmonary Embolism" at the recent meetings of the American Heart Association in San Francisco.

A. D. Muse of Decatur, formerly of Jefferson, has received a certificate of appreciation for his participation in the Georgia Country Doctor Program.

MAG House of Delegates Speaker **J. Frank Walker** of Atlanta will take office as chairman of the Board of Chancellors of the American College of Radiology at the annual meeting of the College in February.

George Bilsten of Atlanta discussed epilepsy at a meeting sponsored by the Atlanta Chapter of the Epilepsy Foundation of America in October.

James N. Brawner, Jr., of Atlanta was installed as President of the Southern Psychiatric Association for the current year at the recent meeting in Bermuda. The next meeting of the Association will be held in Atlanta next October. **Mark A. Gould** of Atlanta is Chairman of the Arrangements Committee.

Robert M. Fine attended a seminar on Histopathology at Temple University Skin and Cancer Hospital in Philadelphia, Pennsylvania, in September.

"Foolishness and Folklore in Sports" was **Fred Allman's** topic in a forum on quackery in sports at the National Conference on the Medical Aspects of Sports held in Houston November 25.

Sixth District

H. Dawson Allen of Milledgeville was among members of the State Medical Education Board who were recently cited for assisting with the Country Doctor bill. **Louis J. Jacobs** and **Richard J. Nutt,** both of Central State Hospital, received certificates of appreciation for their participation in the program.

George R. Dillinger of Dublin, formerly of Thomasville, was featured in an article in a recent issue of the *A.M.A. News* for serving 37 years as an elected officer in medical organizations. Dr. Dillinger is on the staff of the Veterans Administration Center in Dublin and has been appointed to the Medical Education Committee for the MAG.

Seventh District

Claude V. VanSant, Sr., of Douglasville was honored recently on the occasion of his 81st birthday with a dinner given at the VanSants' farm.

James R. Bullard of Acworth has received a certificate of appreciation for his participation in the Georgia Country Doctor Program.

The Walker-Catoosa-Dade Medical Society presented a plaque to **Fred H. Simonton** of Chickamauga in appreciation of his service to the counties for over 30 years and in recognition of 17 years' service on the State Board of Health.

Dr. and Mrs. C. H. Allen of Bremen attended the meeting of the World Medical Association in Lisbon and Madrid in September.

The American Academy of General Practice has elected **Moses N. McCall, Jr.,** of Acworth to active membership.

Gordon L. Hixson has announced the association of **Richard K. Cureton** in the practice of radiology at John L. Hutcheson Memorial Tri-County Hospital. A diplomate of the American Board of Radiology and a member of the American College of Radiology, Dr. Cureton has just completed 11 years' service in the United States Navy.

R. D. Walter of Calhoun and Mrs. Walter recently attended the annual scientific assembly of the American Academy of General Practice in Dallas.

Eighth District

J. R. Martinez of Waycross announces the association of **William A. Trevejo** in the practice of anesthesiology.

Ninth District

John Roger Hemphill has begun practice with **James R. Burns** in Gainesville. Dr. Hemphill has been in practice in Dahlonega for the past two years.

Tenth District

Stephen W. Brown of Augusta has been named president-elect of the American Roentgen Ray Society.

Henry Scoggins of Augusta is the new vice president of the Georgia State Obstetrical and Gynecological Society.

Hartwell physician **Terrell B. Tanner** has been awarded a Fellowship in Cardiology to study at the University of London and the University of Edinburgh. His acceptance depends on finding a qualified doctor to look out for his practice while he is gone. If he accepts, he will begin the study in January 1969.

Thomas Goodwin of Augusta was one of 74 key persons presented with certificates of appreciation from the State Medical Education Board for work in the success of the Georgia country doctor bill.

In the October issue, we inadvertently included the name of McKee Hargrett, an osteopath, in the Personals. We have improved our checking system so that in the future non-members will not be included.

AWARD WINNING FILM AVAILABLE ON LOAN

Schering Corporation, an international pharmaceutical company, received a first prize in the medical research category for its film entry, "Corps Profond," in the 10th International Film & TV Festival of New York.

"Corps Profond" is a 22-minute color movie sponsored by Schering as an educational film for physicians.

Through use of a special universal endoscope developed at the French National Research Center, the film shows intricate workings of the human body such as an exploration of the inner recesses of the brain where cerebral spinal fluid is made. Further highlights include direct views of the previously inaccessible pituitary gland, the master conductor of all hormonal functions, reached by special light probes through the nose and sphenoid sinus.

"Corps Profond" is loaned free to medical and paramedical groups. Arrangements can be made by contacting Schering Professional Film Library, in care of Association Films, Inc., 600 Madison Ave., New York, N.Y.

AESCULAPIUS AWARD HONORS OUTSTANDING SCIENTIFIC EXHIBIT

The Medical Association of Georgia, in cooperation with Mead Johnson Laboratories, takes pleasure in announcing the AESCULAPIUS AWARD, to be presented to the author of the most outstanding scientific exhibit shown at the 1968 Annual Meeting.

The scientific exhibits will be judged by a committee of the Association and the winner of the AESCULAPIUS AWARD chosen by them. The winner will be presented with a certificate, suitably inscribed with the title of the exhibit and the author's name, and will receive a $200.00 cash prize donated by Mead Johnson Laboratories. Presentation will be made during the convention.

Physicians interested in submitting exhibits for showing at the Annual Meeting should make application to Medical Association of Georgia, 938 Peachtree Street, N.E., Atlanta, Georgia.

CHEST PHYSICIANS OFFER LOANS TO RESIDENTS

The Resident Loan Fund was established by the American College of Chest Physicians to assist young physicians in taking postgraduate training in the specialty of diseases of the chest. Any qualified resident may apply for a loan by writing to the Committee on Resident Loan Fund in care of the Executive Offices of the College at 112 East Chestnut Street, Chicago, Ill. 60611. All applications must be approved by the Committee before a loan can be granted.

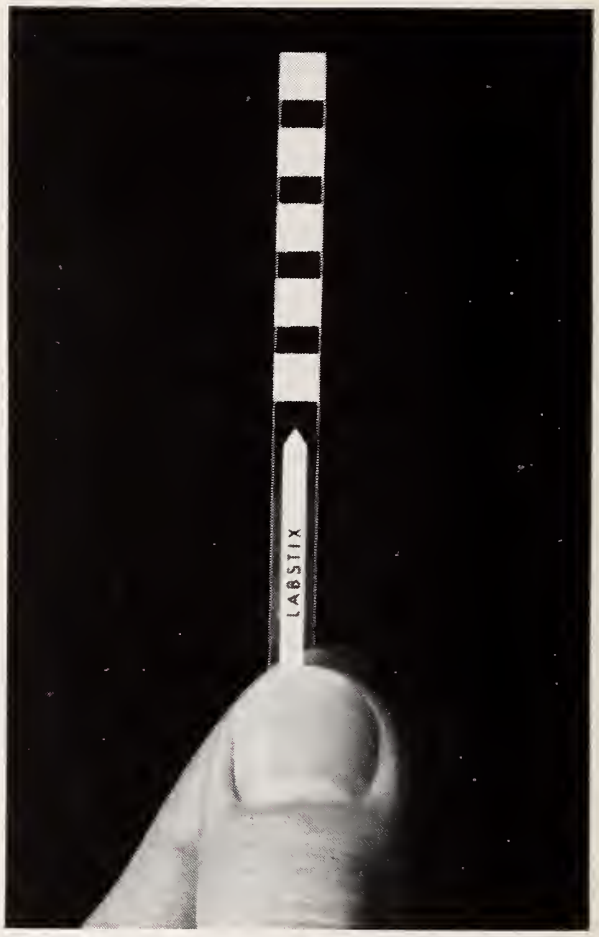
The total amount of a loan to any individual in any one year may not exceed $1,500.00 and, except under special circumstances, the loan will be made available on the basis of $125 per month. No individual may borrow more than $4,500.00. All loans must be protected by life insurance, the premiums to be paid by the borrower.

Interest on the loan is charged at the rate of 3 per cent per annum. Neither principal nor interest on the loan need be repaid for a period of three years after the date of the first loan advance, provided the physician is continuing his postgraduate training in diseases of the chest.

CARDIOVASCULAR RESEARCH GRANT APPLICATIONS DUE JANUARY 31

The Georgia Heart Association has established a deadline of January 31, 1968, for submission of application of Research Grants for the year which begins July 1, 1968.

Applications for grants-in-aid for studies in the Cardiovascular field will be considered if received by that date. Requests must be submitted on forms provided by the Association. These are available by writing: Georgia Heart Association, Inc., Broadview Plaza, Level "C," 2581 Piedmont Road, N.E., Atlanta, Georgia 30324.



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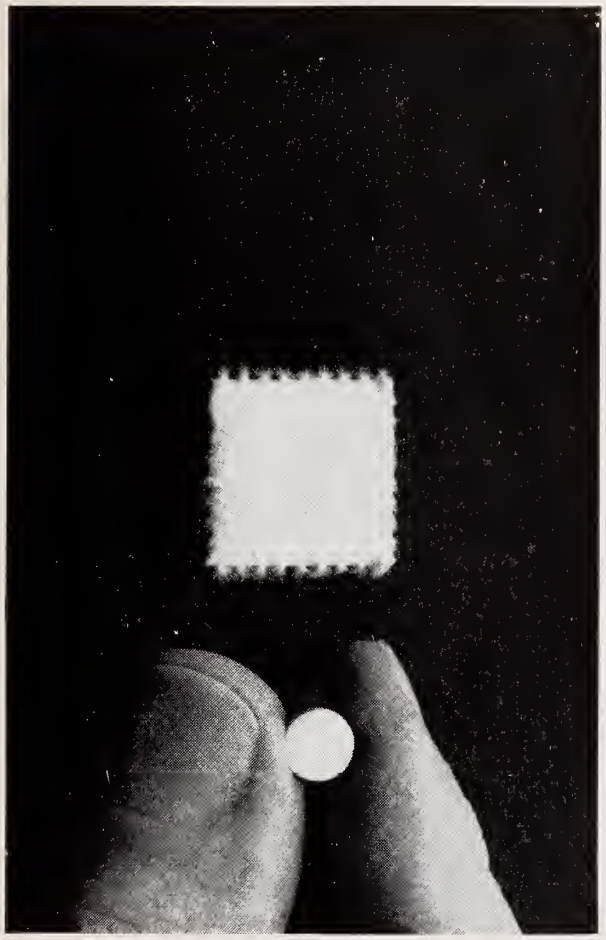

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G. W. BLANCHARD JOINS AMA STAFF

Gerald W. Blanchard has joined the American Medical Association's field service staff. Mr. Blanchard formerly was a secretary of organization for the Illinois Agricultural Association, affiliated with the national Farm Bureau.

He will serve as the AMA's field representative to state and component medical societies in Virginia, Maryland, North and South Carolina, Georgia, and the District of Columbia. The AMA's field service division provides services to state and component medical societies, and serves as liaison to allied health professions and various levels of government.

Mr. Blanchard joined the Farm Bureau staff in 1947, and since 1960 has supervised and assisted Farm Bureau executive secretaries in 16 northern Illinois counties.

He was born in Palmer, Ill., and attended schools at Morrisonville, Ill. He is past master of the Morrisonville Masonic Lodge, past president of the Batavia, Ill., Rotary Club, and a member of the Arlington Heights, Ill., Rotary Club.

MEDICAL STUDENT LOAN FUND SET UP

The Emory Chapter of the Student American Medical Association has presented a check for $500 to Dr. Arthur P. Richardson, dean of Emory University School of Medicine, for establishing a medical student emergency loan fund.

Christian Ramsey of Dallas, Tex., sophomore medical student at Emory, presented the check to Dean Richardson on October 26.

"The student group has long felt the need for such a fund," Mr. Ramsey said. "We hope that this gift will provide a stimulus for the perpetuation of the fund."

The funds were made available to the Emory Chapter by the national Student American Medical Association.

BOUND COPIES OF "MODERN CONCEPTS" AVAILABLE FROM GEORGIA HEART ASSOCIATION

Georgia Heart Association announces the availability of bound volumes of "Modern Concepts of Cardiovascular Disease" for 1965-66.

Bound volumes are available for the following years: 1940-43, 1948-51, 1952-54, 1955-56, 1957-58, 1961-62, 1963-64, and 1965-66. The publication is bound every two years with a subject and author index.

A limited number of bound volumes are prepared for libraries and physicians who wish a permanent record of "Modern Concepts" and can be ordered from the Distribution Department of the American Heart Association, 44 East 23rd Street, New York, N.Y. 10010, at a cost of $3.00 per volume.

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PRECAUTIONS: (1) Outpatient use of desipramine hydrochloride should not be substituted for hospitalization when risk of suicide or homicide is considered grave. (2) If serious adverse effects occur, reduce dosage or alter treatment. (3) In patients with manic-depressive illness a hypomanic state may be induced. (4) Discontinue drug as soon as possible prior to elective surgery.

ADVERSE EFFECTS: Side effects, usually mild, may include: dry mouth, constipation, dizziness, palpitation, delayed urination, "bad taste," sensory illusion, tinnitus, anxiety, agitation and stimulation, insomnia, sweating, drowsiness, headache, orthostatic hypotension, flushing, nausea, cramps, weakness, blurred vision and mydriasis, rash, tremor, allergy, agranulocytosis, altered liver function, ataxia, and extrapyramidal signs.

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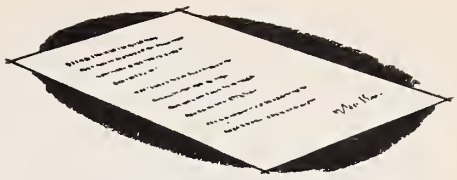
ABSTRACTS BY GEORGIA AUTHORS



Nahmias, A. J., M.D.; Griffith, Dorothy, M.D.; Salbury, Carl, M.D.; and Yoshida, Kosaku, M.D., Emory Univ. School of Medicine, Atlanta, Ga., "Thymic Aplasia," JAMA 201:729-734 (Sept. 4) 1967.

An infant girl with persistent lymphopenia was found to have plasma cells in her bone marrow and, for her age, normal amounts of immunoglobulins (IgA, IgG, and IgM) in her serum. She died at age 4 months from giant cell pneumonia proven to be due to measles virus. Postmortem examination revealed no identifiable thymus. There was an almost complete absence of small lymphocytes in the lymph nodes, spleen and intestines, but plasma cells were present in these tissues. Two sisters who had died earlier of pneumonitis—one with giant cell pneumonia—also had the same type of immunological defect. Since the Swiss type of thymic aplasia is associated with absent plasma cells and agammaglobulinemia, these patients belong to a variant of this syndrome which points to a dissociation between the development of lymphocytes and plasma cells. The increased susceptibility of two of the three infants to measles infection and other clinical and laboratory observations suggests that lymphocytes play an important role in host resistance to this viral infection.

Perdue, Garland D., Jr., M.D., and Smith, Robert B., III, M.D., Emory University School of Medicine and Veterans Administration Hospital, Atlanta, Ga., "Surgical Treatment of Mycotic Aneurysms," Southern Medical Journal 60:848-851 (August) 1967.

Sixteen patients with mycotic aneurysms are presented. Ten were embolomycotic and related to bacterial endocarditis. Others were primary mycotic aneurysms, and followed such sources of bacteremia as respiratory, dental, cutaneous, and urinary tract infections. The most common bacterial organisms cultured were Staphlococcus and Streptococcus.

Three patients died because of rupture of unrecognized visceral arterial aneurysms, and three others died due to other complications of bacterial endocarditis. The remaining ten were treated surgically, using a variety of angioplastic techniques for revascularization. The importance of early diagnosis, prompt surgical treatment, and extended antibiotic coverage are emphasized.

Smith, Robert B., III, M.D.; Lowry, Kermit, M.D.; and Perdue, Garland D., M.D., Emory Univ. School of Medicine and Veterans Administration Hospital, Atlanta, Ga., "Management of the Infected Arterial Prosthesis in the Lower Extremity," Am. Surgeon 33: 711-714 (Sept.) 1967.

The development of bacterial infection around an arterial prosthesis is a grave complication in patients undergoing peripheral vascular operations. Because of the dangers of hemorrhage, arterial thrombosis and sepsis, a number of surgeons have advised early removal of the involved prothesis, with and without secondary bypass procedures. Only a few have advocated conservative wound management in an effort to promote local healing while preserving the original graft. Recent experiences on the Peripheral Vascular Surgery Service of the Emory University School of Medicine have tended to support the latter, more optimistic approach when the problem is confined to an extremity. Nine patients have been treated for deep infections of plastic prostheses in the femoro-popliteal system and only one of the nine has failed to respond to conservative therapy. A second patient experienced recurrent suture-line bleeding but was readily controlled by sutures and local pressure. A third patient developed arterial thrombosis in relation to a wound infection, but his limb remained viable and the wound eventually healed. No deaths or early limb losses could be attributed to infection in this small series.

Edmondson, H. Turner, M.D., and Hobbs, M. L., M.D., Medical College of Georgia, Augusta, Ga., "Primary Adenocarcinoma of the Appendix," Am. Surgeon 33: 717-732 (Sept.) 1967.

Six cases taken from the files of the Medical College of Georgia Teaching Hospital over a sixteen year period are reported, and analysed along with 74 others reported since 1931.

The literature is reviewed. The incidence of adenocarcinoma of the appendix is rare. One recording lists only five cases out of a total 3,400 appendectomies. Apparently, it has never been diagnosed preoperatively. The patient is usually operated upon for appendicitis, or appendiceal abscess and the carcinoma is discovered unexpectedly. In the 80 cases analysed, treatment was almost evenly divided between appendectomy alone, and appendectomy and primary or secondary right colectomy. On the basis of comparative five year survival and relative numbers of deaths from metastatic carcinoma, the evidence is in favor of appendectomy and right colectomy over appendectomy alone. This comparison was made only after elimination of cases in which metastatic spread was obvious at time of initial operation. It includes cases in which the appendix had ruptured prior to operation.

When adenocarcinoma is found in the removed appendix, whether or not the appendix has perforated, right colectomy probably increases the chances of cure and should be carried out promptly when feasible.

Stone, Harlan H., M.D.; Martin, J. D. Jr., M.D.; and Claydon, Charles T., M.D., Emory Univ. School of Medicine, Atlanta, Ga., "Management of the Pulmonary Burn," The Am. Surgeon 33:616-620 (August) 1967.

The diagnosis of a pulmonary burn is made when two of the following three criteria are satisfied: 1) flame burns involving the face, 2) singed nasal vibrissae, and 3) burns sustained in a closed space.

Pulmonary burns pass through three clinically defined stages: 1) respiratory insufficiency, 2) pulmonary edema, and 3) bacterial pneumonia. The most severe burns develop respiratory distress shortly after injury. Pulmonary burns of a lesser degree demonstrate no ventilatory problems until fluid resuscitation has been instituted, at which time pulmonary edema may appear. The majority fail to demonstrate the first two phases but develop bacterial pneumonia as a final complication.

Management of the pulmonary burn is dictated by the clinical stage to which it has progressed. The use of steroids, ventilators, tracheotomy, and antibiotics was thoroughly evaluated. Each measure proved of value for specific situations, although none was completely free of undesirable sequelae.

Stone, H. Harlan, M.D., and Whitehurst, John O., M.D., Emory Univ. School of Medicine, Atlanta, Ga., "Pseudocysts of the Pancreas in Children," Am. J. of Surgery 114: 448-453 (Sept.) 1967.

Two cases of pseudocysts of the pancreas occurring in children are presented. There have been 45 previously reported cases in children. An analysis is made of the 41 patients who had been described in adequate detail. Etilogy, diagnosis, treatment, and results are discussed.

Pancreatic pseudocyst should always be considered as a possibility in the differential diagnosis of any upper abdominal mass in children. Otherwise, morbidity and mortality are considerably increased.

Sbar, Sheldon, M.D., and Schlant, R. C., M.D., Emory University School of Medicine and Grady Memorial Hospital, Atlanta, Ga., "Dipyridamole in Angina Pectoris," JAMA 201:865-867 (Sept. 11) 1967.

The problems of evaluating any form of therapy for angina pectoris are well known. This study was designed principally to test the hypotheses that dipyridamole (Persantin) exerts a beneficial therapeutic effect upon attacks of angina pectoris and that this effect may be apparent only after prolonged administration.

Since there were inadequate reports of double-blind studies in which the recommended dosage was used over an extended period, we designed and performed a double-blind study to compare the effects of dipyridamole during the first three month period (trimester) with its effect during the second trimester and to compare the effects of dipyridamole with those of a placebo.

The data from 47 patients were considered to be reliable for analysis: 23 patients who received 150 mg of dipyridamole (Persantin) for six months and 24 patients who received a placebo identical in appearance.

The study failed to detect a statistically significant difference between the improvement in patients receiving dipyridamole and the improvement in patients receiving a placebo. There was no statistically significant evidence that dipyridamole produced a beneficial effect during the second trimester of therapy.

Nassar, Gabriel F., M.D., Crawford W. Long Memorial Hospital, Atlanta, Ga., "Modified Williams-Richardson Operation for Uterine Prolapse," Obstetrics and Gynecology 30: 233-237 (August) 1967.

Eleven patients of childbearing age with symptomatic prolapse of the uterus were treated by a suspension technique employing straps of external oblique aponeurosis anchoring the distal ends to the cervix at the insertion of the uterosacral ligaments. In two patients in which it might have been difficult to develop facial straps due to previous abdominal surgery, Merse-line tape straps were used in exactly the same manner anchoring the distal ends to the external oblique aponeurosis and muscle. A modification of the technique described by Williams and Richardson was used in all cases. The ages range from 20 to 31 and the parity from 1 to 3 prior to surgery. In a relatively short period of follow-up, the operative results have been excellent in all patients. Two of the eleven patients have subsequently had a term pregnancy without recurrence of prolapse. The operation should in no way affect childbearing function. It should have no adverse effect on fertility, pregnancy, labor, or delivery; neither should these functions adversely affect the results of the operation.

Nahmias, Andre J., M.D.; Griffith, Dorothy, M.D.; and Snitzer, Joseph, M.D., Emory Univ. School of Medicine and Grady Memorial Hospital, Atlanta, Ga., "Fatal Pneumonia Associated with Adenovirus Type 7," Amer. J. Dis. Child. 114:36-41 (July) 1967.

A 10 month old white girl died with a severe pneumonia non-responsive to antibiotics following an episode of measles. Postmortem examination revealed increased amount of pericardial fluid, fatty changes in the liver and reactive hyperplasia of the lymph node. A diffuse interstitial pneumonitis was found with mononuclear cell infiltrate and hyperplasia of the alveolar lining cells. Many of the alveolar cells had large nuclei containing one or multiple eosinophilic inclusions suggestive of an adenovirus infection.

Adenovirus type 7 was isolated from the lung ($10^{7.5}TCD_{50}$/gram), pericardial fluid ($10^{4.5}TCD_{50}$/ml) and stool. Formalin preserved lung sections prepared for electron microscopy revealed viral particles consistent with the adenovirus group in many cells.

A three year old sister who also had measles followed by pneumonitis which took three months to resolve, was found to have an adenovirus type 7 infection followed by an adenovirus type 2 infection.

These cases support the concept that a viral infection may predispose a patient to other viral infections and offer further evidence for the severity of certain adenovirus pneumonias. An association of adenovirus infection to pericarditis and the usefulness of electron microscopy studies for the identification of viruses in formalinized tissues are also suggested.

Scott, Harold George, Ph.D., New Orleans, La., and Clinton, James M., V.M.D., National Communicable Disease Center, Atlanta, Ga., "An Investigation of Cable Mite Dermatitis," Annals of Allergy 25: 409-414 (August) 1967.

The authors investigated reports by employees of a physics laboratory in which paresthesia with no apparent cause was present in ten personnel. The activity in which the complaints arose involved the identification of nuclear interactions by women known as scanners.

Physicians occasionally encounter dermatoses which are attributed by affected persons to various vague agents. Many complaints of paresthesia are common among women who work with dusty records or electronic equipment. It was not surprising when these victims blamed "cable mites" as the cause of their discomfort.

Many such complaints are never satisfactorily explained and are attributed to entomophobia. However, many investigators have demonstrated that similar industrial complaints are nearly always occasioned by physiologic response to biologic or physical agents, or as manifestations of systemic disease.

It was noted that during recent structural alterations, a row of acoustic ceiling tiles had not been replaced. This permitted rock wool particles to accumulate on the scanning machines used by the complainants. When these machines vibrated slightly during operation, dust was dislodged, thus creating a fine aerosol of rock wool dust in the scanning chambers. The irritant factor in the environment was eliminated, and the action taken in deference to the psychological state of the workers created by conversation devoted to the problem.

Roddenberry, S. A., M.D., and Conger, A. B., M.D., Columbus, Ga., "Hypothermia in Acute Pancreatitis," JAMA 201:825-827 (Sept. 11) 1967.

The use of hypothermia in the treatment of two cases of pancreatitis is reported. Both patients were males in their forties. The first case of acute pancreatitis developed in a man who had received blunt trauma to the upper abdomen and the other in a heavy drinker of alcohol. Both cases developed a very high fever with mental confusion and general deterioration to a nearly disasterous degree. Prompt reduction of the hyperpyrexia by the use of a hypothermic blanket produced dramatic clinical improvement in each patient. The recovery of both men was both gratifying and surprising.

Eichelter's four studies of the influence of hypothermia in experimental pancreatitis have shown that dogs receiving hypothermic treatment survived consistently. Death regularly occurred in the control group, and autopsies showed marked pancreatic destruction in the untreated animals. Further clinical trials utilizing hypothermic techniques in treating acute severe pancreatitis seem indicated.

Humphries, Arthur L., Jr., M.D., Medical College of Georgia, Augusta, Ga., "Organ Preservation, A Review," Transplantation 5:1138-1153(July)1967.

Storage in an intermediate host has permitted better and longer (5 days) perservation of a dog kidney than any other method.

Perfusion with hypothermia, as well as hyperbaric oxygen and hypothermia. has in isolated instances permitted successful reimplantation after 3 days storage.

Simple cooling is by far the simplest method and will by itself protect kidneys for at least 6 hours, and perhaps 24 hours with slight additions.

Any perfusion technique, it seems to us, should use a perfusate without platelets or red cells. With such acellular perfusates, perfusions can routinely be continued for 3 to 40 days. Although no such perfused organ has been reimplanted successfully after more than 3 days, it seems likely that it suffered not so much from a lack of oxygen as from a lack of proper nutrients for energy and cell repair.

Since this manuscript was submitted we have successfully reimplanted one canine kidney perfused for five days at 10 C with one part plasma: one part Eagle's solution and another kidney perfused for four days with just Medium 199; the membrane lung in both experiments was supplied with air: the kidneys are maintaining blood urea nitrogen levels at 51 and 57 mg% respectively.

PHARMACEUTICAL MANUFACTURERS ANNOUNCE FAIR PRACTICES CODE

A comprehensive new code covering the advertising and promotion of prescription drug products has been announced by the Pharmaceutical Manufacturers Association, a non-profit, scientific, professional and trade organization representing the manufacturers of more than 95 per cent of the nation's prescription drug products.

Under the formal title of the "PMA Code of Fair Practices in the Promotion of Drug Products," the Code replaces an earlier set of principles which has covered ethical drug promotion practices since 1958. The complete Code follows:

"Recognizing the importance to the public health of providing the medical profession with accurate information on drug products, and the need to assure that PMA members, their employees and agents present such information fairly and objectively,

"The Pharmaceutical Manufacturers Association hereby promulgates and adopts the following Code of Fair Practices in the Promotion of Drug Products as a revision of its 1958 statement of Principles on the same subject:

"A. Code Standards

"1. As used in this Code:

"(a) The term 'drug product' means any pharmaceutical or biological product intended for use in the diagnosis, cure, mitigation, treatment or prevention of disease in humans, or to affect the structure or any function of the human body, which is promoted and advertised to the medical profession rather than directly to the lay public.

"(b) The term 'promotional communications' means (1) journal advertising, mailing pieces, and similar written materials (including, to the extent reasonably practicable, films, exhibits and similar visual presentations) directed to members of the medical profession by the pharmaceutical industry for the purpose of promoting a drug product and (2) written instructions and materials prepared for sales or professional representatives containing representations to be made by them to members of the medical profession. Where compliance with the requirements of this Code is not reasonably practicable within the format of a film, exhibit or similar visual presentation, written materials meeting those requirements shall be distributed to all members of the medical profession attending the presentation.

"(c) The term 'medical profession' includes allied professions in the health field.

"2. Complete and accurate information concerning marketed drug products should be made available promptly to the medical profession. Promotional communications to the medical profession which include a description of indicated uses or dosage recommendations for a prescription drug product should also include a summary (or full disclosure where required by law) of side effects, precautions, warnings and contraindications, and of effectiveness for the described indicated uses. Such summary should have sufficient prominence in terms of type size, location and similar factors to provide reasonable assurance that it will be observed.

"3. Statements in promotional communications should be based upon substantial scientific evidence or other responsible medical opinion. Claims should not be stronger than such evidence warrants. Every effort should be made to avoid ambiguity. Whenever statistical or background information or references to unpublished literature or observations are used in promotional communications, the source material should be available to the medical profession upon request.

"4. Statements with respect to or quotations from medical literature or from the personal communications of clinical investigators in promotional communications should not distort the intended meaning of the author or the significance of the study.

"5. Any comparison with other drug products should be made upon a valid scientific basis.

"6. No public communication by a manufacturer shall be made with the intent of promoting a drug product as safe and effective for any use before the required approval of the drug product for marketing for such use is obtained. However, this provision is not intended to abridge the right of the scientific community and the public to be fully informed concerning scientific and medical progress. Thus it is not intended to restrict a full and proper exchange of scientific information concerning a drug product, including appropriate dissemination of investigational findings in scientific or lay communications media, nor to restrict public disclosure to stockholders and others concerning any drug product as may be required or desirable under law, rule or regulation.

"7. Promotional communications should have medical clearance before their release.

"B. Code Administration

"It is the unqualified intent of the Association that each member shall follow strictly the principles set forth in the Code. To that end the members of the PMA are encouraged to submit information to the President with respect to any alleged breach of this Code by any other member. On the basis of such information and any other information available to him, the President shall take appropriate action including, if required, referral of the information to an ad hoc committee of the Board. The committee shall be chosen by the Chairman of the Board unless the member company represented by the Chairman has submitted such information or is the subject of such information, in which case the President shall make the appointments. The General Counsel of the Association shall act as secretary of each ad hoc committee and shall report the committee's findings to the President who in turn will refer the findings to the Board of Directors.

"Any member firm which clearly and persistently violates the Code may be asked by the Board of Directors to resign from the Association."

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January 25-26—Perinatal Problems, Continuing Education Course, Medical College of Georgia, Augusta, Ga.

February 22-23—Internal Medicine: Recent Advances in Therapy, Continuing Education Course, Medical College of Georgia, Augusta, Ga.

February 23-24—American College of Physicians, Alabama Regional, Point Clear, Ala.

March 4-7—New Orleans Graduate Medical Assembly, New Orleans, La.

March 12-13—Basic Electrocardiography for the Practitioner, Continuing Education Course, Medical College of Georgia, Augusta, Ga.

March 19-20—Recent Developments and Clinical Applications in Obstetrics and Gynecology, Continuing Education Course, Medical College of Georgia, Augusta, Ga.

May 5-7, 1968—114th Annual Session of the Medical Association of Georgia, Town House, Augusta.

National

January 11-13—First International Conference on Prematurity sponsored by AMA Department of Health Care Services, Pier 66, Lago Mar, Marina Motor Inn, Ft. Lauderdale, Fla.

January 14-18—Society for Cryo-Ophthalmology, Second Annual Meeting, Miami Beach, Florida.

January 15-19—Neurology and the Internist, American College of Physicians Postgraduate Course, University of Miami School of Medicine, The Eden Roc Hotel, Miami Beach, Florida.

January 17-18—American Rheumatism Association (Interim Meeting), Sheraton-Belvedere Hotel, Baltimore, Md.

January 18-20—National Conference on the Community and Emergency Medical Services, San Francisco Hilton Hotel, San Francisco, Calif.

January 19-20—American Society for Surgery of the Hand, Palmer House, Chicago, Illinois.

January 20-25—American Academy of Orthopaedic Surgeons, Palmer House, Chicago, Illinois.

January 29-31—Society of Thoracic Surgeons, Roosevelt Hotel, New Orleans, La.

February 3-7—American Academy of Allergy—Statler Hilton, Boston, Mass.

February 6-10—American College of Radiology, Drake Hotel, Chicago, Illinois.

February 7-9—American Academy of Occupational Medicine, Marriott Twin Bridges Motel, Washington, D.C.

February 19-21—American College of Surgeons, Sectional Meeting, Statler Hilton, Dallas, Tex.

February 28-March 3—American College of Cardiology, San Francisco Hilton Hotel, San Francisco.

March 1-3—American Association of Pathologists and Bacteriologists, The Drake Hotel, Chicago, Ill.

March 11-13—American College of Surgeons (Sectional Meeting for Doctors and Nurses), Williamsburg Inn, Williamsburg, Va.

March 15-16—AMA Council on Mental Health Conference of State Mental Health Representatives, Drake Hotel, Chicago, Ill.

March 18-20—American Academy of Pediatrics, Regency-Hyatt House, Atlanta, Ga.

March 24-30—American Society of Clinical Pathologists (Interim), Roosevelt Hotel, New Orleans, La.

March 30-April 3—American Society of Abdominal Surgeons, Sherman House, Chicago, Ill.

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1. Gold, Harry, *et al.: A System for the Routine Treatment of the Failing Heart,* The American Journal of Medicine, Vol. III, No. 6:665-692 (Dec.) 1956.
2. Modell, Walter: *Drugs of Choice 1966-1967,* p. 97, 1966.

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